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EMERGENT
GAME TECHNOLOGIES

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ALPHA

ADVENTURES IN GAMES DEVELOPMENT: NEWS, VIEWS & MORE

"Thinking that 'There's no such thing as a bad idea' is bollocks…"
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Develop Award finalists named

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New job for Peter Molyneux

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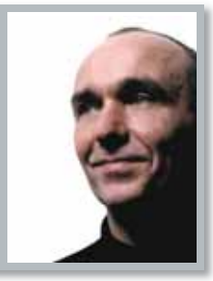

Middleware booms in the recession

Thought the credit crunch might put a squeeze on technology? Think again – middleware is more important than ever

by Michael French

Global software sales might be flat year-on-year with VC capital and risk-taking scarce, but the middleware sector is actually benefiting from the recession.

Speaking to *Develop* in an in-depth guide to the engine market, both traditional tools firms and developers which have turned to selling their own engines say that start-ups formed out of studio closures and the pressure to make sure-fire hits means middleware is more important than ever.

US developer Terminal Reality has gone as far as to launch a brand new competitor into the engine ring – the Infernal Engine, which powers the firm's eagerly-anticipated *Ghostbusters* game – at a time when many might be expected to scale back their ambitions and play it safe.

"The current turmoil in the video games industry is actually going to drive engine middleware sales," Joe Kreiner, the firm's VP of marketing told US. "We're seeing lots of layoffs and companies going out of business. As these people reform into new studios, they'll be more inclined to use engine middleware, rather than try and re-create technology mid-way through the console cycle. Overall demand for video games is still strong, and games need to be created to meet that demand."

Of course, price is still key. And while demand for third-party engines is higher than ever, so is pressure on cost: "I would definitely look at licensing technology in this environment, but I'd be pushing harder for flexible payment terms and bigger price breaks," commented Torque 3D developer GarageGames' Brett Seyler.

For most studios, especially newer ones, investing time and money into building proprietary tech is now impossible, he said.

"The build vs. buy question doesn't even merit discussion for most platforms until you're at least a couple of hundred people. When we made the decision to develop Torque internally, there was nothing like it below several hundred thousand dollars. Now there's competition and better options for developers on a budget. I don't think there's ever been a better time to license engine technology than today."

> ***"For most studios, especially newer ones, investing time and money into building proprietary tech is now no longer an option."***

Plus, claims Epic's Mark Rein, studios are actually looking to tried and battle-tested third-party technology to further minimise risk: "In this economy, if we can help someone get five points higher on their Metacritic score, that translates into game sales – those zeroes appear at the end of the royalty cheque," he explained, adding that Epic too is encouraging its licensees towards its flexible pricing structure for Unreal.

"Most of our deals have a royalty component so we're just as keen to make a licensing agreement work for both parties. We've always had totally flexible deals – people really overestimate what the Unreal Engine costs. I don't know who is spreading those rumours, but it's nice to know people think it costs so much – but we're dedicated to driving value. Because that's what counts for everyone in this business.

"There's lots of room for lots of middleware. We invested a lot in ours, though – we invested more in Unreal Engine 3 than some studios have made in total revenue. Those investment give us a nice situation, and we've hit cert on so many products that buying an engine like ours is a safe choice for studios."

■ *Our comprehensive and in-depth look at the engine and middleware market starts on page 40*

Editorial

Eyes on the prize(s)

It can sometimes be quite hard to keep up with the fast-changing world of games development.

Who would have thought, for instance, that Namco Bandai would all of a sudden be in the middleware business? (It now owns Vicious Engine following its move to buy Vicious Cycle owner D3 Publisher.)

Or that in just than 12 months iPhone would have upturned one area of the industry, generated millions of dollars – 70 per cent of which has gone straight into developers' pockets – and taught an audience of 30m how to download games?

How about the fact that EA has in just a year completely lost its place at the top of the publisher pile, and is fast looking at ways other than boxed product to keep its business going?

Sure, this business is unpredictable. But one thing is keeping up with the changes: the Develop Awards.

This year we debated at length the finalists and shortlist, weighing up the pros and cons of each title and each business, taking into account their achievements in the fields like visual arts, audio excellence or technical innovation.

Over 70 companies are in the running for the 2009 awards, from those who always make the shortlist (welcome back, Rockstar, Babel, Epic Games, EA, Sony, and Traveller's Tales) to new companies that are showing that old guard how to innovate (pull up a pew, Ngmoco, Apple, Hand Circus, Secret Exit and Playfish).

Given the broad remit of the finalists, where one-man 'microstudios' and tiny teams can stand alongside armies backed by major publishing deals, I think we've clearly set an agenda as the most forward-thinking awards show out there.

And I've been to plenty of gong-shows ceremonies – certainly, there's no shortage of them in games – but too many of them push marketing men on stage to collect prizes for generic 'best game' awards. That's not the case at the Develop Awards – we welcome those at the coal-face of games development to come along and be rewarded.

It's shaping up to be another great event.

See you there.

Michael French
michael.french@intentmedia.co.uk

Develop Awards

Over 70 different companies in the running for our coveted awards

by Michael French

July 15th. That's the day the cream of European games development will convene on Brighton's Metropole Hotel for the Develop Awards.

As the list of finalists to the right details, the Awards acknowledge the best work in the games development sector, rewarding not just studios and their creative endeavours, but the work done by the publishers, service companies and technology firms that support them.

Both traditional console and PC games are given nods, as have new fields like iPhone and Facebook.

Media Molecule and *LittleBigPlanet* score five nominations, Rockstar Leeds gets four for *GTA: Chinatown Wars* and its sister studio Rockstar North gets two nominations for its DLC *The Lost and Damned*.

There's also numerous nods for iPhone development – Apple is nominated as publishing hero, as is 'spiritual first party' publisher for the format Ngmoco. *Rolando* developer Hand Circus gets a nomination for Best New Studio, while Secret Exit is nominated as Best Handheld Developer and its iPhone game *Zen Bound* given a nod for new IP.

We've also added a brand new award this year, Best Engine, to acknowledge the ever-important role middleware has in the games industry.

A dedicated look at the finalists for the awards can be found in the supplement included with this issue.

The event takes place on Wendesay July 30th at the Hilton Metropole Hotel in Brighton, alongside the Develop Conference.

Jason Manford, one of the most successful stand-ups in the country, has been confirmed as the host of the event. Also team captain from panel show *8 Out of 10 Cats*, Manford is taking a break from his nationwide tour to name the winners.

Winners for each of the 16 awards will be decided by judging panel of over 100 games development execs, and the victors will be named on the night. And that's not all – once that's done we also reveal who has won our special recognition Development Legend and Grand Prix awards.

Seats and tables are already selling out, with over 400 industry professionals already set to attend the event.

To book a place contact **Jodie.Holdway@bhpr.co.uk**

Jason Manford, 8 Out of 10 Cats team captain – and one of the UK's leading comics – is host of the Develop Awards this year

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Rockstar and Media Molecule have scored the most nominations – but could they be trumped this year by the various developers at the cutting edge of iPhone and Facebook games?

finalists named

● Media Molecule leads the nominations ● New award for engines addded for 2009

DEVELOP AWARDS: The Finalists

develop INDUSTRY EXCELLENCE AWARDS

CREATIVITY

Best New IP
LittleBigPlanet (Media Molecule)
Mirror's Edge (EA DICE)
Pure (Black Rock Studio)
Zen Bound (Secret Exit)
You're in the Movies (Zoe Mode)
Burn Zombie Burn! (Doublesix)

Best Use of Licence
Lego Batman (Traveller's Tales)
The Chronicles of Riddick: Assault on Dark Athena (Starbreeze Studios)
Outrun Online Arcade (Sumo Digital)
Beijing 2008 - The Official Video Game of the Olympic Games (Eurocom)
House of the Dead: Overkill (Headstrong Games)
Hasbro Family Game Night (EA Bright Light)

Visual Arts
LittleBigPlanet (Media Molecule)
Grand Theft Auto: Chinatown Wars (Rockstar Leeds)
Killzone 2 (Guerrilla)
Xbox 360 Avatars (Rare)
PlayStation Home (London Studio)
Pure (Black Rock Studio)

Audio Accomplishment
Fable II (Lionhead)
Mirror's Edge (EA DICE)
You're in the Movies (Zoe Mode)
House of the Dead: Overkill (Headstong Games)
GTAIV: The Lost and Damned (Rockstar North)
Empire Total War (The Creative Assembly)

Publishing Hero
Apple
Sega
Direct2Drive
Codemasters
Ngmoco
Valve

TECHNOLOGY & SERVICES

Technical Innovation
LittleBigPlanet (Media Molecule)
Killzone 2 (Guerilla)
Grand Theft Auto: Chinatown Wars (Rockstar Leeds)
Fable II (Lionhead)
PlayStation Home (London Studio)
Football Manager Live (Sports Interactive)

Best Tools Provider
Autodesk
Havok
Audiokinetic
Hansoft
Perforce
Scaleform
Quazal

Best Engine
Unreal Engine 3 (Epic Games)
Gamebryo (Emergent Game Technologies)
BlitzTech (Blitz Games Studios)
Unity (Unity Technologies)
Vision Engine (Trinigy)
PhyreEngine (SCEE R&D)

Recruitment Company
Aadvark Swift
Datascope
OPM
Amiqus
Natural Selection
SpecialMove

Servies
Testology
Babel
Universally Speaking
Partnertrans
Testronic Labs
Audiomotion
Centroid

Creative Outsourcing
High Score
Axis Animation
Outsource Media UK
Side & Sidelines
Richard Jacques Studios
Nimrod
Pitstop Productions

STUDIOS

Best New Studio
Media Molecule
nDreams
Hand Circus
Proper Games
Playfish
Crytek Budapest

Best Handheld Game Studio
Rockstar Leeds
Exient
Curve
Traveller's Tales Fusion
Secret Exit

Best Business Development
Revolution
Gimme5Games
Monumental
Playfish
Crytek
Blitz Games Studios

Best Indy Developer
Media Molecule
Sumo Digital
Crytek
Asobo
Starbreeze Studio
Jagex

Best In-House Team
Lionhead
Sports Interactive
Black Rock Studio
EA DICE
Rockstar North
Rockstar Leeds

SPECIAL RECOGNITION

Development Legend

Grand Prix

develop mobile

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End of an Era

Net Yaroze's European server is to be terminated in July

by Michael French

AFTER 12 years, Sony's Net Yaroze Programme has come to an end.

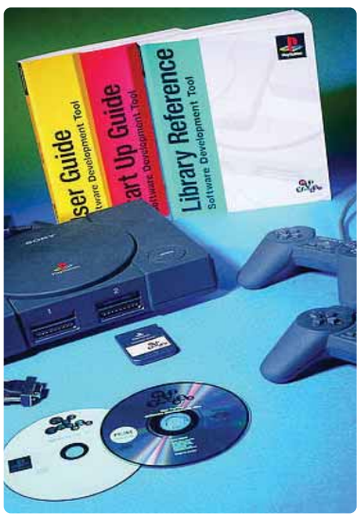
Started in March 1997, the PlayStation project was designed with the goal of making modern console development accessible to non-professionals. (For more info see en.wikipedia.org/wiki/Net_Yaroze.)

For many, it offered a unique opportunity to learn about developing for the most popular console at the time – indeed, many of the original members used their experiences with the service as a stepping stone to entering the industry.

Subscribers received special devkits and access to an online message board and community site.

But after a dozen years service, the ageing Netyaroze-Europe server is at the end of its life, and SCEE are planning to turn it off in July, the company tells us.

"We plan to make a copy of the site available for our original members," explained SCEE R&D's Paul Holman.

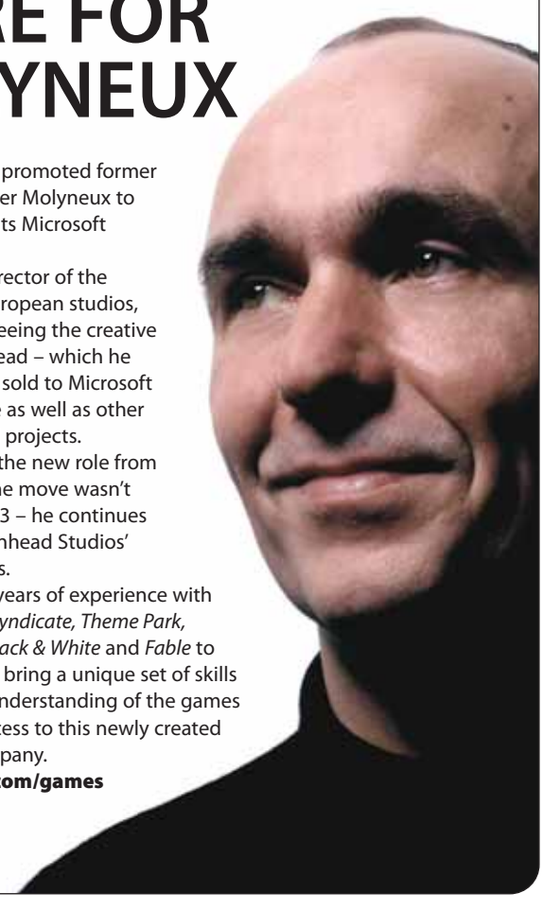


The Net Yaroze devkit kick-started the careers of several industry professionals

He also said that a drinks party to celebrate the programme's achievements for its original members will be held at either Develop in Brighton or SCEE's London office.

www.netyaroze-europe.com

MORE FOR MOLYNEUX



MICROSOFT HAS promoted former Lionhead boss Peter Molyneux to a new role within its Microsoft Games Studios.

Now creative director of the format-holder's European studios, Molyneux is overseeing the creative direction of Lionhead – which he founded and later sold to Microsoft in 2006 – and Rare as well as other European external projects.

Molyneux took the new role from March 30th, but the move wasn't announced until E3 – he continues to be based at Lionhead Studios' Guildford premises.

He has over 20 years of experience with games *Populous, Syndicate, Theme Park, DungeonKeeper, Black & White* and *Fable* to his name and "will bring a unique set of skills and an in-depth understanding of the games development process to this newly created role", says the company.

www.microsoft.com/games

DEVELOP DIARY

YOUR COMPLETE GAMES DEVELOPMENT EVENT CALENDAR FOR THE MONTHS AHEAD…

THE DEVELOP QUIZ
June 18th
Sway bar , Holborn, London
katie.rawlings@intentmedia.co.uk

How clever is your studio? Find out by battling it out with rivals at The Develop Quiz, which returns this month for its third competition.

Taking place at the Sway bar in Holborn, London on Thursday, June 18th, the latest outing for this essential networking event will pit 20 teams of five against each other.

The winners will scoop £2000 advertising credit for *Develop* print or online, a trophy, bottles of champagne and recognition as the industry's most knowledgable team.

With plenty of other prizes on offer, and a chance for a great evening out, studios, publishers, QA, recruitment and localisations companies are all welcome to attend.

JUNE 2009

THE DEVELOP QUIZ
June 18th
London, UK
katie.rawlings@intentmedia.co.uk

GAMEHORIZON CONFERENCE
June 23rd to 24th
Newcastle, UK
gamehorizonconference.com

IDEF
June 30th to July 2nd
Cannes, France
www.idefexpo.com

JULY 2009

DEVELOP CONFERENCE 2009
July 14th to 16th
Brighton, UK
www.develop-conference.com

DEVELOP INDUSTRY EXCELLENCE AWARDS
July 15th
Brighton, UK
www.developmag.com/develop-awards

CASUAL CONNECT SEATTLE
July 21st to 23rd
Seattle, US
seattle.casualconnect.org

GAMES CONVENTION ONLINE
July 31st to August 2nd
Leipzig, Germany
www.gamesconvention.com

AUGUST 2009

EDINBURGH INTERACTIVE
August 10th to 16th
Edinburgh, Scotland
edinburghinteractivefestival.com

GDC EUROPE
August 17th to 19th
Cologne, Germany
www.gdceurope.com

GAMESCOM
August 19th to 23rd
Cologne, Germany
www.gamescom-cologne.com

CHINA GDC
August 27th to 29th
Shanghai, China
www.chinagdc.com

SEPTEMBER 2009

GDC AUSTIN
September 14th to 18th
Texas, USA
www.gdcaustin.com

GAME CONVENTION ASIA
September 17th to 20th
Singapore
www.gc-asia.sg

OCTOBER 2009

GDC CHINA 2009
October 11th to 13th
Shanghai, China
china.gdconf.com

CASUAL CONNECT KYIV
October 22nd to 24th
Kyiv, Ukraine
kyiv.casualconnect.org

LONDON GAMES FESTIVAL
W/C October 26th
London, UK
www.londongamesfestival.com

LONDON GAMES CONFERENCE
October 27th
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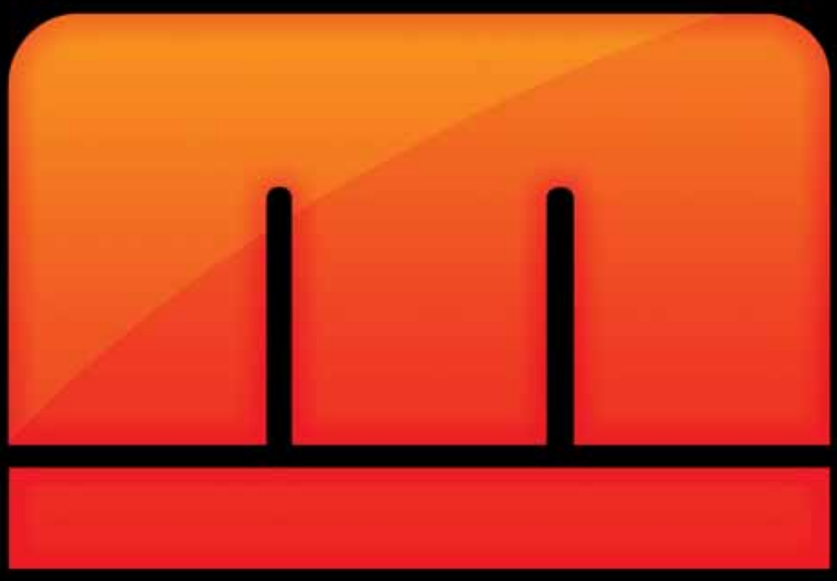

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WorldView

Our monthly digest of the past month's global games news…

DEALS

Trinigy has integrated **xaitment**'s various AI packages into its Vision Engine.

Terminal Reality's Infernal Engine has a new customer: **Namco Bandai**, who licensed the tech for **Red Fly Studio**'s *Food Network: Cook or Be Cooked*.

Gameinvest has partnered with **RealGames** to create a piece of original casual IP, which Real will publish in Europe, the US and Latin America.

Big Huge Games has been saved from doom by **38 Studios**, which hopes to tap the company's skills for console titles on its *Copernicus* IP.

French indie **Cyanide** has secured the rights to George R. R. Martin's *A Song of Ice and Fire* series of fantasy novels.

Zoo Games has picked up the IP of doomed publisher Empire, including the European-developed *Flatout* and *Big Mutha Truckers*.

Casual game giant **Big Fish Games** has acquired multi award-winning Vancouver developer **Grubby Games** – the developers of *Professor Fizzwizzle* and *Incredibots* – for an undisclosed fee.

4 MMINUTE WARNING

Rockstar's founding duo Gary Foreman and Jamie King have established a new independent studio, 4mm Games.

The New York City-based studio will work on non-physical software for the iPhone and various online channels, as well as projects for consoles. Its first product is *Def Jam Rapstar*, rapping's answer to *SingStar*, developed with Def Jam Interactive.

When at Rockstar, both Foreman and King were involved in the production of heavyweight games such as *Grand Theft Auto, Max Payne* and *Bully*.

Joining the team will be ex-Image Metrics exec Nicholas Perrett, who joins the group as its new CEO. "It is an utterly unprecedented time in the history of videogames," he said, "as the Web and new business models disrupt the existing value chain."

Paul Coyne, once a senior adviser to the likes of Def Jam Enterprises and Warner Music, also joins the group as executive vice president.

www.4mmgames.com

IRELAND

BLIZZARD'S AGGRESSIVE IRISH EXPANSION

World of Warcraft developer Blizzard has revealed the extent of its operations in the Irish City of Cork. Opened in 2007 with an aim to have 100 people by 2010, it today employs a whopping 600 staff, with a collective capacity to speak and write in 25 languages. It's also signed a deal with national development agency IDA Ireland to further improve the studio.

eu.blizzard.com

UNITED STATES

MIDWAY TO AUCTION OFF STUDIOS AND IP

Midway is hoping to sell off the company's entire collection of assets within the next month. Warner Bros has already launched a $33m bid to acquire the *Mortal Kombat* IP and the publisher's Chicago and Seattle studios. That leaves the company's San Diego and Newcastle studios up for the taking, for which it'll be accepting bids until June 24th.

www.midway.com

JAPAN

TEAM NINJA STAFF FORM TOKYO VIKINGS

After his resignation and legal battle with ex-employer Tecmo last year, Tomonobu Itagaki – the man behind the *Dead or Alive* series and *Ninja Gaiden* – has set up a new studio, Tokyo Vikings, alongside over 20 of his former colleagues. They told *1UP* that they're working on a new IP that will depart from their fighting game heritage.

www.tecmo.co.jp

UNITED STATES

EA UNVEILS BROWSER-BASED TIGER WOODS

EA's Florida-based Tiburon studio is working on a new *Tiger Woods* game exclusively for web browsers. Called *Tiger Woods Online*, the game will require no disc or installation, meaning that the game can be played anywhere. A multi-tiered subscription model may also signify EA Sports' first foray into free-to-play gaming.

www.easports.com

PARIS

UBISOFT TO SLOW RECRUITMENT DRIVE

Seems like not even Ubisoft can keep on expanding forever: CEO Yves Guillemot has said that, after hiring a whopping 1,300 people last year, the company will slow down on recruitment this year, saying: "We hired more than we planned to last year, so we will diminish the number of hires this year."

www.ubisoft.com

CANADA

PROPAGANDA TO PIRATE THE CARIBBEAN

Disney studio Propaganda, which most recently worked on the reboot of dinosaur FPS *Turok*, has been tasked with creating a new open-world action RPG in the *Pirates of the Caribbean* universe, called *Armada of the Damned* – set to feature an all-new script.

propagandagames.go.com

SOUTH KOREA

SOUTH KOREA INVESTS IN SERIOUS GAMES

The South Korean government has pledged to invest 80 billion Won – approximately $63m – into the nation's growing serious games market. It hopes to get the market value of the industry up to $400 million by 2012, which it sees as an 'emerging blue ocean'. The initiative is a joint effort between the Ministry of Culture, Sports and Tourism and national newspaper Etnews.

www.mct.go.kr/english/index.jsp

UNITED STATES

ZOE MODE OPENS SAN FRANCISCO OFFICE

Zoë Mode has established a new studio in San Francisco, to be headed up by Sony Computer Entertainment vets Sarah Stocker and Mark Danks. Stocker was previously senior producer at Sony Computer Entertainment's Studio 5, where she headed up the US launch of the SingStar franchise, while Danks last served as senior manager of developer relations at SCE and director of technology for EA.

www.zoemode.com

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Our online resource features news, features, analysis and commentary posted daly, and is avaulable via the web, mobile, RSS and daily email and news alert blasts.

HARRISON STEPS DOWN AS ATARI PRESIDENT

PHIL HARRISON HAS LEFT his post as president of Atari, moving to the role of non-executive director of the Group.

The surprise move comes after *Develop*'s sister magazine *MCV* revealed that Atari's European publishing operations would, for the most part, be entirely taken over by Namco Bandai in the next few weeks.

That looked as thought it would leave Harrison and Infogrames CEO David Gardner at the heart of a new, online content-driven Atari: a vision Harrison had espoused at the beginning of his tenure at the company, and the impetus behind the publisher's purchase of US MMO developer Cryptic.

However, Harrison has now left his post – leaving question marks hanging over the hierarchy of the new company.

In a statement, Atari said: "Because of a shift of business operations to the US, Phil Harrison will move from the role of President to that of non-executive director of the group. As all Board members, he will continue to assist, support and guide the company's strategy."

www.atari.com

UNITED KINGDOM

ELSPA APPROACHES THE FINAL FRONTIER

Cambridge-based independent Frontier Developments has joined ELSPA, the UK's trade body for the games industry. The company, which recently dipped its toe into self-publishing with the WiiWare title *LostWinds*, is joining the organisation to tackle the issues of piracy, age ratings and the issue of pre-owned games. "We think it's vital that these issues are addressed swiftly, and ELSPA is the body through which we will try to achieve this," said founder David Braben.

www.frontier.co.uk

UNITED STATES

THE DISCOVERY CHANNEL ENTERS THE GAME

The latest media giant to dip its toes into the games space is The Discovery Channel, which has inked deals for three branded games. UK studio Slitherine is working on *Discovery Channel Trivia Video Game* for next-generation consoles and PCs, while two other games – based on two of the channel's more popular shows, *Deadliest Catch* and *Cash Cab* – are being developed by Hands-On Mobile and Capcom respectively. It also worked on Sony Japan Studio's *Afrika*.

dsc.discovery.com

Top 10 Developers Chart – May 2009

#	COMPANY	COUNTRY	PRODUCT
1.	**Nintendo**	**Japan**	**Wii Fit**
2.	Yuke's	Japan	UFC 2009: Undisputed
3.	EA Canada	Canada	FIFA 09
4.	Raven Software	USA	X-Men Origins: Wolverine
5.	Capcom	Japan	Resident Evil 5
6.	Game Freak	Japan	Pokemon Platinum
7.	EA Redwood Shores	USA	The Godfather II
8.	Treyarch	USA	Call of Duty: World at War
9.	Amaze Entertainment	USA	X-Men Origins: Wolverine
10.	Level 5	Japan	Professor Layton

Chart Supplied By: ChartTrack charttrack.co.uk ELSPA elspa.com

SAY WHAT?!?

"The smartest and dumbest thing I ever did was to sell my company to EA. We could have stayed in business just on Medal of Honor alone."

Movie director supremo Steven Spielberg ruminates on his selling of Dreamworks Interactive to EA in a Reuters interview

"Getting to the end screen of Super Mario Bros. 2 was more important than anything in the history of time."

J. J. Abrams – the man behind Lost, the Star Trek reboot, and most importantly Alias – admits his secret 1989 obsession

"You can get lost in the world of Grand Theft Auto IV, but we're using it just to shoot people and run over old ladies. We could be doing so much more."

Pan's Labyrinth director Guillermo del Toro wants games to mean more. Shame his Hellboy 2 game involvement lacked that.

"I played video games throughout my childhood. One of my favorites was Super Mario. I wouldn't sleep until I finished it."

Much like JJ Abrams, Christian Bale also had a little Mario addiction. Better to lose sleep over that than the Terminator: Salvation game, we guess

COMMENT: BUSINESS

Extraordinary Games: Artix Entertainment

by Nick Gibson, Games Investor Consulting

For this month's column I want to kick off a new series analysing some of the most interesting and successful companies operating at the fringes of the games industry; market pioneers and commercial innovators redefining what a games development company is and what it can achieve.

Our first target is Artix Entertainment, a company that I am guessing many of you will have never heard of.

Artix develops Flash-based persistent browser games which it operates through battleon.com, its own games portal. Its portfolio is centred around four core single, multiplayer and massively-multiplayer games titles. All feature classic role-playing gameplay and persistent game state tracking (i.e. your achievements and progress in the game are recorded on an ongoing basis), even for the single player games. The games are all Flash-based and played through browsers on almost all internet-enabled computers. They comprise colourful but basic manga-inspired 2D graphics with largely static backdrops and little by way of animation. As games aesthetics go, Artix's games bear little resemblance to today's retail console and PC titles.

However, as games popularity goes, Artix's games rank alongside any of today's console and PC titles – even the blockbusters. Since it was founded in 2002, Artix has attracted over 80 million player registrations (currently increasing at a rate of some 200,000 per week) and gets 12 to 17 million people playing its games every month.

Most remarkably, Artix, a family run business, has built this vast online games user base with a headcount that has only recently reached 29 full-time staff. Of this, just 16 are based in its Florida headquarters with the remaining 13 telecommuting from elsewhere in North America and Europe.

ONE-OFF WONDER

Artix's business model has matured over time whilst retaining one constant: complete commercial independence. Beginning with donations to help keep the servers running, it has evolved to encompass: one-off player upgrades, advertising, in-game promotions, retail cards, merchandise sales and, most recently, microtransactions and subscriptions.

The one-off upgrade has historically formed the cornerstone of the business with players able to unlock premium features via one-off payments of $20 to $30. However, the problem with this model is that the high ticket price puts off many gamers, while the one-off nature of the payment caps the potential revenue achievable per player and can result in a substantial mismatch between player revenues and ongoing player costs. Microtransactions, on the other hand, suffer few of these problems and, as elsewhere in the browser-based MMO market, have now become a crucial part of Artix's business. For its most recent game, MMO *AdventureQuest Worlds*, Artix has also sensibly replaced one-off upgrades with three to 12 month subscriptions costing $4 to $6.50 per month.

> ***"Aesthetically, Artix's games bear little resemblence to today's console titles. But in terms of popularity it ranks alongside any of them."***

Artix has never revealed any revenue or profit figures publicly. However, in its seven year history, it has never raised any external capital and, according to its CEO, is sufficiently cash generative that it has never had a need for external finance having rejected numerous VC suitors. Artix's potential for continued player base, revenue and profit growth remains strong. Its games are still only available in English and it has long-term plans to add several European languages and Chinese. Additional titles will be added to the Artix portfolio and may well follow the more commercially aggressive example set by *AdventureQuest Worlds*.

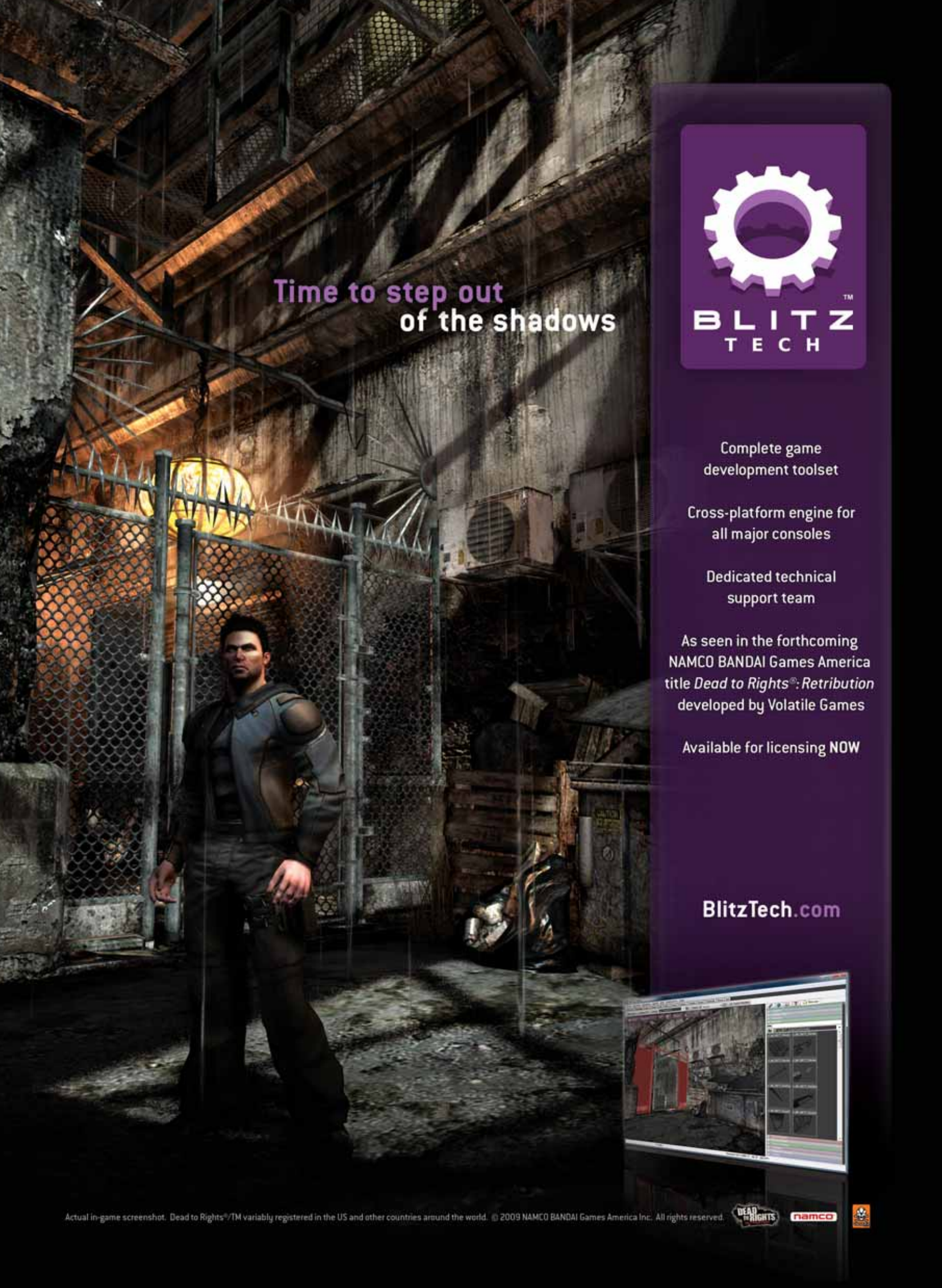
Artix is a very private company and exists largely below the games consumer press' radar. Its games are neither previewed nor reviewed on the major games editorial sites, despite reaching comparable player numbers to Xbox Live. Artix's games do tend to attract quite a narrow demographic (the majority are 13 to 17 year old boys for whom accessibility, gameplay and community are more important than flashy graphics) but this is arguably one of its fortés and one of the reasons why it has grown so effectively without traditional games promotion.

You might not have heart of Artix, but in Flash games they are a force to be reckoned with

Artix maintains an extremely close relationship with its userbase, listening to recommendations, implementing weekly content updates and running regular player events. Its games are therefore highly tailored for this demographic and regularly tweaked to maximise their appeal to them. As a result, word-of-mouth has played a critical role in growing the firm's customer base – although this has been supplemented by more conventional web advertising methods. However, its direct marketing costs are still low.

Artix is an example of what a games developer can achieve with limited capital, a small team (by traditional development standards), tried-and-tested gameplay designs and an extremely strong service mentality. Far from being commercial or even creative inhibitors, the use of Flash and the web as technology and distribution platforms has opened up a broad range of new revenue and audience opportunities for Artix. From this relatively modest foundation, it has built a sustainable and rapid growth business model; a low cost-base coupled with direct consumer relationships monetised via multiple revenue streams, total creative and financial independence, and a sizeable gamer footprint.

Nick Gibson is a director at Games Investor Consulting, providing research, strategy consulting and corporate finance services to the games, media and finance industries.
www.gamesinvestor.com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COMMENT: INDUSTRY

Exploiting the recession

by Owain Bennallack

Recessions are a vital part of capitalism. Without these cyclical purges, more bad companies would limp along, drawing money away from those with better ideas or less efficient operations. Worse, we'd live in some kind of planned economy, where every citizen has two tractors, but no socks.

Such a glib characterisation of a 100-year old ideological battle may be of little comfort if you're suffering from the worst downturn since World War 2. But the flipside is that for stronger companies, recessions present the opportunity to take market share and get positioned for the good times.

LESS IS MORE

For example, studies have shown that companies who step up their marketing in a recession tend to benefit.

Advertising cuts are easily justified when profits are falling, yet marketing money goes further in a downturn as rivals slash their budgets and rates fall.

Result: a good product can reach more consumers for less money.

Cheap advertising is not obviously useful to many game developers, and nor is another classic recessionary silver lining – High Street vacancies and falling rents. Very useful if you're looking to roll out a pizza restaurant chain, not so much if you're a studio making games in an industrial park. But the point is these downward forces are at work across the economy, not just in town centres where they're most visible.

HAGGLENOMICS

Here are five ideas for ways games companies can benefit from the recession:

1. Everything is negotiable

Office rent, insurance, equipment, salaries, benefits, company cars: drive a hard bargain on anything you need to buy or hire. Deals are there to be made with landlords for whom a healthy company is a prized commodity after that flashy big spender went bust last month. Even if you can't get a cheaper price, you might be able to get tweaks to onerous clauses in long-term agreements.

2. Fire bad staff

I'm not qualified to discuss employment law. But what I can tell you is companies and experts have told me a recession is the time to cut the dead wood out of a company.

Investors are more stony-faced than ever – but there are ways to turn the downturn to your advantage

The key, obviously, is to make sure the right people go. Some big games companies are currently amputating limbs where keyhole surgery would seem advised. Dropping a whole team when a project is completed delivers fast results for shareholders and might be easier legally, but it represents a lot of recruitment time and potentially good talent down the drain.

> ***"For stronger companies, recessions present the opportunity to take market share and get positioned for the good times."***

3. Hire great staff

Such short-sighted shedding of staff combined with studios going bust means employers have the upper hand for once in game development. People are scared, and potential employees now value strong looking survivors, which you can use to your advantage.

And don't neglect graduate recruitment. With so many experienced staff knocking about, some studios aren't bothering with new blood. But this could be the opportunity to find really great brains that'll thank you twice over for the start.

4. Exploit currency swings

The pound is still low against the dollar, for various macro-economic reasons. What matters for UK studios is they're more competitive than they've been for many years (tax incentives and so on aside). I'd hope this would be an opportunity for companies to fatten their margins, rather than simply undercut each other, but we'll see.

European developers have the opposite problem – a strong currency. Perhaps a good time to consider outsourcing to a dollar-linked corner of the world?

5. Diversify

Less competition and cheaper staff mean this could be a great time to innovate into new markets or technologies, such as those we're exploring at the Develop Conference in Brighton's new Evolve day on July 14th.

For an illustration, consider the Internet business. After the dotcom implosion, venture capital and advertising vanished and most Internet companies went to ground (whether dead and buried, or merely hiding). This opened up space for Facebook, YouTube, MySpace, Flickr and the other so-called Web 2.0 outfits that emerged during those years. Will we see something similar in games?

Owain Bennallack is executive editor of *Develop*. He edited the magazine from its launch until its February 2006 issue. He has also worked at *MCV* and *Edge*, and has provided consultancy and evaluation services to several leading developers and publishers. He is also chairman of the Develop Conference advisory board.

COMMENT: DESIGN

Documenting your Design

by Billy Thomson, Ruffian Games

Right now the Ruffian design team are diligently working away on the design of our current project.

Aside from the final balance and tweaking stage, we're right in the middle of what I believe is one of the most important stages of game production. Get this part wrong and you'll likely spend the rest of the project struggling to keep your team motivated and your publisher happy – which is a marriage destined for divorce.

So, while it's obviously a huge responsibility, it's also that golden time at the start of a project. You can discuss incredibly ambitious features without fear of your producer telling you to go sit on the naughty step and you genuinely feel like there are no bad ideas – which I should point out is total bollocks. There's usually an abundance of truly awful ideas, but we put them forward all the same, as a bad idea can occasionally coax a good one from a creative mind.

This month I'll discuss how well thought out, well presented design documentation is essential to properly manage publisher expectations, plan the production of the project, and generate that crucial buzz within the development and publishing teams.

MANAGING EXPECTATIONS

Ensuring that your own plans as a developer match those of the publisher is vital if your working relationship is going to be a successful one. At Ruffian we strive to include the publisher at every stage of development of the game, especially the early high-level paper design.

While you're looking for a contribution from the publisher, it is still advisable to go into this stage armed with a solid paper design that explains the core game and the feature set. Trust me, it will help make this entire process run far more smoothly. This early inclusion of the publisher in the design process can cause tension at times but I can testify that it's definitely worth the stress, as it creates a unity between the developer and publisher, allowing you to begin the production planning stage with everyone fully behind the design and 100 per cent focused on the same set of goals.

PRODUCTION PLANNING

When the high level paper design has publisher approval, you can then begin the process of fleshing out the requirement documents for the game. Everything must be documented – features, mechanics, story, visuals – and for each of these you need detailed requirements for each discipline: code, art, audio, design. It's a huge task, but it must be done properly. These documents are then reviewed by the developers responsible for the work to ensure everything is as it should be and that there are no obvious issues with the design.

Only when you have gone through this process are you really ready to start planning the production of the game, which allows you to know whether the team you have can make the game you have envisaged within the defined timeframe.

GENERATING EXCITEMENT

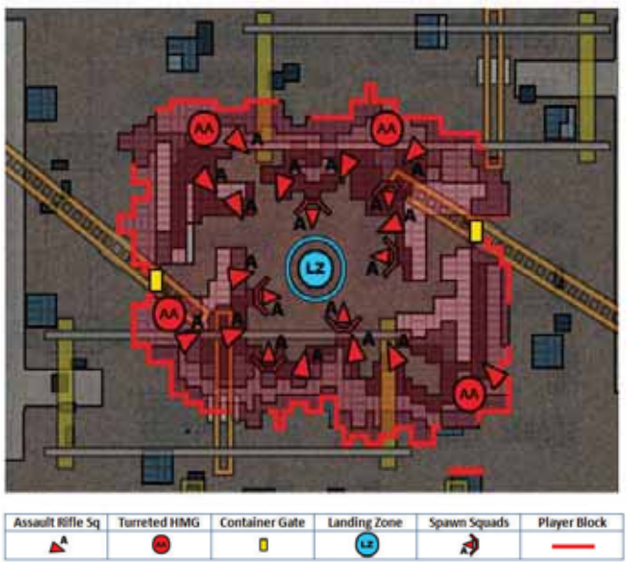
This may seem like an odd one, but keeping the development team excited about the game can sometimes be a tough job. Yes, they may be working on a great game, but it's also likely that they're working on a small feature in a game with hundreds of features which can make it difficult for them to realise its significance or importance in the game.

> ***"Thinking that 'There's no such thing as a bad idea' is bollocks. But a bad idea can occasionally coax a good one from the creative mind."***

Thankfully we have talented designers at Ruffian who can create design documentation that has solid, easily understood content that is also easy on the eye. This kind of high quality design documentation allows our team to understand the game design and see how their own work fits into the bigger picture and benefits the game.

Ensuring that the development team believe in the game is important for morale, but keeping the publisher excited is absolutely vital. If your game design is well presented and excites your publisher early on, they will back you all the way: big marketing budgets, coverage at the best press events, everything your game needs to be a commercial success. If the excitement isn't there they will put their weight behind another game in their catalogue, leaving your potentially great game with very little marketing spend. If this happens, the best you can expect is critical rather than commercial success, and while praise is fantastic it can't buy you a pint in the pub.

Documenting a game design can be an exhilarating, freeing experience as well as an incredibly daunting time for a designer. One day you can feel like the gaming world is your bump mapped oyster, then the next you feel completely overwhelmed by the amount of content you're ultimately responsible for. In the end, the process of defining a game on paper is ultimately the most important task a designer is responsible for during the development of any game.



Proper design docs is key, as this snapshot from Ruffian's documentation shows

Billy Thomson is the creative director of newly-formed developer Ruffian Games. Billy has over 13 years experience of designing video games, including design roles on *Grand Theft Auto* and *GTA2*, before working as lead designer on Realtime Worlds' celebrated *Crackdown*.
www.ruffiangames.com

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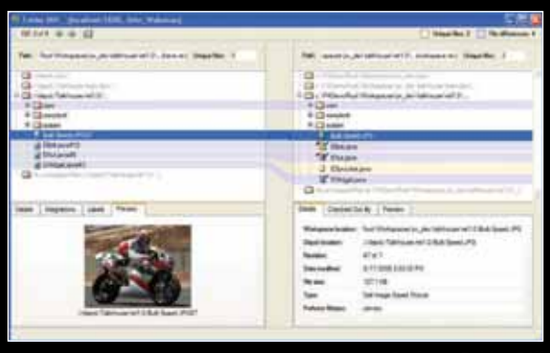

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COMMENT: CODING

Colour Banding

by David Jefferies, Black Rock Studio

Colour banding is an artifact in computer graphics where the viewer can distinguish between colours that are meant to form a smooth gradient. It was very common in the days when machines could only display a limited palette such as 64 or 256 colours and so the machine had to pick the closest matching colours when attempting a gradient.

But these days all games have a palette of 16.7 million colours – so why is it that colour banding still exists?

Colour banding occurs when the viewer can perceive the difference between two adjacent colour intensities, and so the first thing to recognise is the relationship between colour banding and gamma correction, which we talked about last month.

The human eye is much more sensitive to changes in dark colours than in lighter colours. So, while it wouldn't perceive the difference between adjacent high intensities such as 226 and 227, it would perceive the difference between adjacent low intensities such as 8 and 9.

COLOURFUL EXPRESSION

It's for this reason that we apply a gamma ramp to our image that gives more colour resolution to darker intensities than lighter ones. So if you haven't set up your render pipeline to be gamma correct – and remember the default set-up for DirectX and OpenGL is to be not gamma correct – then you're not going to be giving enough resolution to the darker colours, and so these will cause banding.

A common way to see this issue is to inspect the vignette that a lot of games have these days. This is a technique that emulates old movie cameras by darkening down the corners of the screen. A vignette is normally applied in a full screen pass and procedurally fades the image to black in the corners.

If the render target hasn't been set up to be gamma correct then you'll notice that the vignette exhibits banding. There'll be similar banding artifacts introduced when performing any algorithmic operation on the framebuffer, such as tone mapping colour correction.

The next most common cause of banding is the DXT compressed textures that the consoles use. DXT is very popular because it reduces the memory required for a texture down to at least a quarter of its original footprint. However, this comes at a visual cost, because it can be very lossy.

DXT compression works like this (thanks to Shawn Hargreaves for this description):

- Divide the image into 4x4 blocks
- For each block, find the two most important colors in it
- Store these two colors in 16 bit 5.6.5 format
- For each of the 16 texels in the block, store a two bit value indicating how far it lies between the two main colors

The problem is the truncation that happens when converting to 5.6.5 format. The red and the blue values are losing three bits of information giving them only 32 possible intensities. The green fares slightly better with 64 intensities – it's favoured with the extra bit because our eyes are more sensitive to it.

> ***"A lot of developers ignore colour banding, but these artifacts add up to a serious reduction in visual quality that can be easily avoided."***

With such a big loss of precision it's easy to see how colour banding is introduced. Sky domes can be among the worst offenders because they tend to take up a lot of screen acreage and have lots of subtle gradients. When these subtle gradients are quantized into 32 intensity levels in the blue channel the banding becomes obvious. One possible trick is to swap the blue and green channels in the texture so that the blue channel gets to have 64 intensity levels. Of course, you'll then need to swap the channels back in the pixel shader.

GIVING IT SOME TEXTURE

If the texture is made up of texels with low intensities then it'll be particularly susceptible to banding because it's the least significant bits of each colour channel that are truncated. One common technique is to normalize these textures by brightening them up at export time by a scalar and then using that scalar to bring them down to their original intensity in the pixel shader.

Colour banding is crucial to creating visuals that don't break the digital illusion

This only works if the texture consists only of low intensity texels because the high intensity information will be lost. So sometimes the best solution is just to mark the worst offending textures to not be DXT compressed and to take the memory hit.

Finally, there's alpha blending and transparency. When rendering alpha texels into the framebuffer, the effective colour resolution of the framebuffer pixel is reduced because the colour values are being multiplied by a fractional value representing the alpha. This can become very obvious when layering lots of low intensity alpha polygons on top of each other, for example when drawing smoke or dust. It doesn't take many layers before banding starts to appear on these types of objects. Reducing overdraw helps in these scenarios as does introducing a dither pattern into the alpha'd texture.

A lot of developers ignore colour banding in the pressure of trying to make a game but these artifacts, combined with the gamma correct artifacts from last month, add up to a serious reduction in visual quality that can be easily avoided.

David Jefferies started in the industry at Psygnosis in Liverpool in 1995, eventually working on *Global Domination* and *WipEout 3*. He later moved to Rare where he worked on the *Perfect Dark* and *Donkey Kong* franchises. Next came a move down to Brighton to join Black Rock Studio (which was then known as Climax Racing) in 2003. On this generation of consoles he's been the technical director of *MotoGP'06* and *MotoGP'07* before starting work on new racer *Split/Second*.
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BETA

DEVELOPMENT FEATURES, INTERVIEWS, ESSAYS & MORE

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Tall Tales

We find out why American studio Telltale Games is the only one to have successfully exploited the episodic games model, p20

Telling Tales

How does a Californian studio go about capturing the distinctly British humour of the world-famous Wallace and Gromit? **Ed Fear** sat down with the firm's CEO and co-founder Dan Connors at GDC to talk Wensleydale, dream licenses and making in-roads into the UK…

Telltale is, some might say, the ideal game development studio. Think about it: it's not beholden to publishers. It releases its games through its own website and self-publisher on digital console storefronts. It can work on a genre that its founders love – the apparently-no-longer-viable adventure game market. It scores big licences. And it's the only firm to actually achieve the episodic gaming model, now working on three on-going series at once.

The studio's latest licence, however, veers sharply from the Americana surrealistic humour of *Sam & Max* and *Strong Bad*: the quintissentially British *Wallace & Gromit*.

The first question we ask Dan Connors – the LucasArts alum who left to co-found the studio and serve as its CEO – is, perhaps predictably, why pick something so British?

"There are licenses that are going to have a shitload of marketing behind their movie, and there are licenses that have built up over time through great creative work," he explains.

"*Wallace & Gromit* falls into the latter, and we wanted to be associated with it. From an artistic standpoint it's beautiful, and it's a different look which is great for our artists to work on. It's a lot different than building soldiers and explosions. Plus, Aardman is the right-sized company for us to be working with, because the relationship is more on the creative side; there's not a bunch of business people between the creatives. It's the same with the Chapman brothers [creators of *Strong Bad*] and Steve Purcell [creator of *Sam & Max*] – it's a very direct link. We're not working with Nick Park directly, but we have a lot of access to Aardman's creatives."

CREATIVE COMFORTS

While such a close relationship with the licence is what many developers would dream of, there's also much more pressure on – and much more emphasis on – getting it exactly right.

Connors admits that, at the beginning, there were some uncertainties on Aardman's side. "They were a little wary of it not fitting in to the franchise, but once they worked with us on the stories and we'd got that right, and engaged the right people for voice acting and writing, it really really started to work.

"The stories were a huge part of it. Once we brought on a UK editor to capture the flavour – because it's not just British, it's a very specific area – we were able to capture that voice, that slang."

Rather than just acting in an approval capacity, Aardman also helped Telltale capture the look as closely as possible, inviting the firm to its Bristol headquarters to see how it had progressed.

"They were able to tell us how they achieved certain effects, what particular angles they always used, and even gave us their mouth shapes so we could make them animate perfectly. We brought it to a certain point and they'd say 'You're really really close, here's the signature stuff that'll make it perfect'. The funny thing was that every challenge that we had in bringing these characters into 3D had sprung up for them too when working in clay. They helped us work through a lot of things."

Aardman couldn't help them with everything though, he recalls: "There was one particular thing I remember: you know how Gromit sometimes walks on two legs and sometimes on four? We were puzzling about how he would make that transition, so we asked them. They just said, 'well, we just don't show that.'"

MARKET FORCES

Looking at Telltale's previous work, it's easy to see where the company was marketing itself – starting with the hardcore. *Sam & Max* had a history that spoke to gamers. *Strong Bad* was immensely popular on the internet; exactly the market Telltale was selling to. While *Wallace & Gromit* has a significantly stronger presence across the world than either of those two licenses, is it too distinct – and are its customers too retail-focused – to prove as popular as Telltale's previous work?

"It certainly creates challenges for us," admits Connors. "But at this point Telltale has got a certain amount of credibility in the gaming space, where if you attach the Telltale name to something they don't know – like *Wallace & Gromit* – hopefully our history will make people want to try it. In addition to that, there's the audience of people who know *Wallace & Gromit*, hear that there's a game out and want to try it.

"I think it does present challenges in letting people know it's there, and getting the right marketing behind it, because we're not EA;

we're not going to put a huge amount of money into blasting it out there. We need to be really smart in the way in which we execute that."

The other point is that Telltale's short production times and established technology makes producing country-specific games a possibility. "Our budgets are such that, if it succeeds really well in the UK, we could keep on doing it forever. We just need to figure out how to let people in the UK know that it's out there. Our big markets are UK, US and Germany, and I think we can hit them strong."

IP FREELY

For many idealistic designers, artists and programmers, the real dream – or, for the more assertive ones, the only reality – is working on original IP. *Wallace & Gromit* is only the latest in a long line of external properties that Telltale has worked on in its five years – and it certainly won't be the last.

"It's work we don't have to do," explains Connors. "It's already proven successful; they've put a ton of effort into building out these worlds and these characters. For us to be the ones that take them and make them interactive is an honour. For us to be working with these people, on a very close basis to the point where they almost become part of our company during the production process, is such a great thing for Telltale, as we try to become better storytellers.

"The challenge of cinematic and visual storytelling is a big one, and there's so much talent with all these partners who can help us think about these things. We want to be the best storytelling company that ever existed. So having all these great storytellers work with us so closely – there's just a huge investment in that. So when we do our original thing one day, we're going to haul that education behind. It's really been about building up our skillset.

"If you think of Max, for example, there are classic signature poses that come from the original comic. If you put an animator on that character without that knowledge, he'd come up with different signature stuff, but here we don't have to do that – this classic stuff is already there. Then the animators can put their love into the expression, rather than thinking about what his animations should look like. What [Steve] Purcell did is genius, and now we can make it better."

TALES OF THE UNEXPECTED

If licenses are the company's future, what licenses does Connors dream of working on?

"All my ideas get shot down," he laughs. "I want to do *The Young Ones*, *The Big Lebowski* – only so you can have White Russians as a powerup – and *Spinal Tap* would be my third. Maybe if any of those rights owners are reading *Develop*, who knows?"

But one in particular – one slightly more plausible, and one crying out for a decent game conversion – apparently tends to crop up around the studio on a regular basis.

> ***"The difficulties experienced and the fact we got past them is why we're the only ones to have innovated with episodic gaming."***
>
> Dan Connors, Telltale Games

"*Doctor Who*. We do get e-mails from people asking us to make a *Doctor Who* series. Maybe if we can get a channel into the UK with *Wallace & Gromit* we could talk business with the BBC, that would be really good for us. We've got some work to do to understand the economics – it's a different country, it's a different way of doing business. If we can get the lid off there we'd love to do a ton of product there, because it's always been a great market for our *Sam & Max* stuff."

"If we could get the cost down to a decent price-per-show model, we could do wild, off-the-wall shows to just test it. It's just about optimising the business model, managing the development cost and hitting the gameplay experience. So if we wanted to see if people were interested in some spoof of *Legally Blonde* or something, we could just try it out."

We can't let our time with Connors end without asking him about Telltale's unique achievement of being the only company to make the episodic gaming model work. Is there anything he in particular attributes it to?

"The difficulties we experienced, and the fact that we got past them, are the reasons why we're the only ones that have really innovated with episodic games. We're old guys. We've seen a lot, and realised that we don't want to do these massive, uncontrollable things – we're very focused on what the product is going to be. We really focus on scope, we really focus on tools, and we really focus on production processes. We set out with a target, and that was to deliver games monthly, and we built a team to do that."

www.telltalegames.com

Telltale benefits by working on licences, says CEO Connors, as it means it can focus on gameplay, not fine-tuning IP

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Bright Thinking

With the upcoming Develop Conference set to analyse major changes in the industry during its dedicated Evolve strand, we asked our readers what they thought of how digital distribution is shaping the way they make games…

The Develop Conference in Brighton is fast approaching. And things have changed for its fourth edition. Specifically, the first day of the event has been set aside for Evolve, a day-long conference looking at the changing face of games development across digital distribution, smart phones and social networks.

In anticipation of the day, organiser Tandem Events put together a survey asking developers about new areas of games development. They were asked the following: how will digital distribution, ubiquitous internet connectivity and/or web 2.0 influence the games you're making?

Answers were vast and varied, but were broadly split into three categories: development, customer and business. A summary of the top line answers from developers follows.

DEVELOPMENT

According to respondents, digital distribution and online connectivity completely shapes the way we will develop games – and today all games must have online modes to succeed.

This is due to the prevalence of faster internet speeds useful for online gaming and customer expectations.

But it has also changed expectations within the industry. Respondents pointed out that online services have effectively changed the nature of games themselves, and designing specifically for online or digital distribution has shaped their productions.

Taking online into account is "no longer optional" said one answer – another pointed out how it also subverts the entire model the industry has become used to for the past five to 10 years.

Online makes it easier for indie/small developers to develop games and enter the market, and it increased the chances of their success, even when the games themselves are of a smaller scale too. It means more casual games are entering the market, but experiences that are more in-depth secure more faithful customers too. "We can create games that can constantly evolve and have a longer shelf life," said one respondent.

CUSTOMER/AUDIENCE

In terms of finding those customers, online actually makes it easier to source them, our survey said. Essential customers are able to connect anywhere thanks to online (and, presumably, the use of a connected platform like a smartphone, PC or handheld games device), which enables developers to reach a wider audience.

It means a direct dialogue with those consumers too. Online players are more committed and vocal, which means that contact with customers will help influence future games and contribute to shaping their design or content.

At the same time, the easier distribution of online and the chance to gain more exposure doesn't just give access to a mass market of online players – it also allows developers to be more targeted and "create games designed for a niche market" – meaning that in the online space, there's usually something for everyone.

BUSINESS

As you can probably predict, a number of respondents said that online services and digital distribution was now encouraging them to look at new business models.

For reasons why that was, the predominant answer was themed around how the business of games development has, as we mention above, been disrupted by online. "We are no longer bound by retailer needs and preferences," said one developer. "We can operate in smaller teams now," said another, with other respondents saying their team can now split down into even one-man units developing new games and concepts.

Plus, developers aren't just in the fire and forget mode of making a packaged disc and hoping it will be a hit – today DLC and planning for it early not only sets up new revenue streams, but mitigates risk.

Online activity also has positive benefits for publishers and developers: specifically, it allows for lower production costs and helps to decrease piracy. "That means more revenues for developers," said one respondent.

But most importantly, is the switch online gaming has spurred. Multiple respondents said they were now changing their strategy to focus on the lucrative areas of the sector – specifically by producing digitally distributed games for iPhone and Facebook. In the words of one studio, these new platforms "allow us to research new game methods".

■ *The Evolve strand at the Develop Conference will be examining all these issues and more, with sessions from companies at the cutting edge of new forms of games development such as Google, MySpace, Playfish, Ngmoco and many others. Head to* ***www.developconference.com*** *to find out more.*

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POSITIVE ABOUT DISABLED PEOPLE

Cloud control

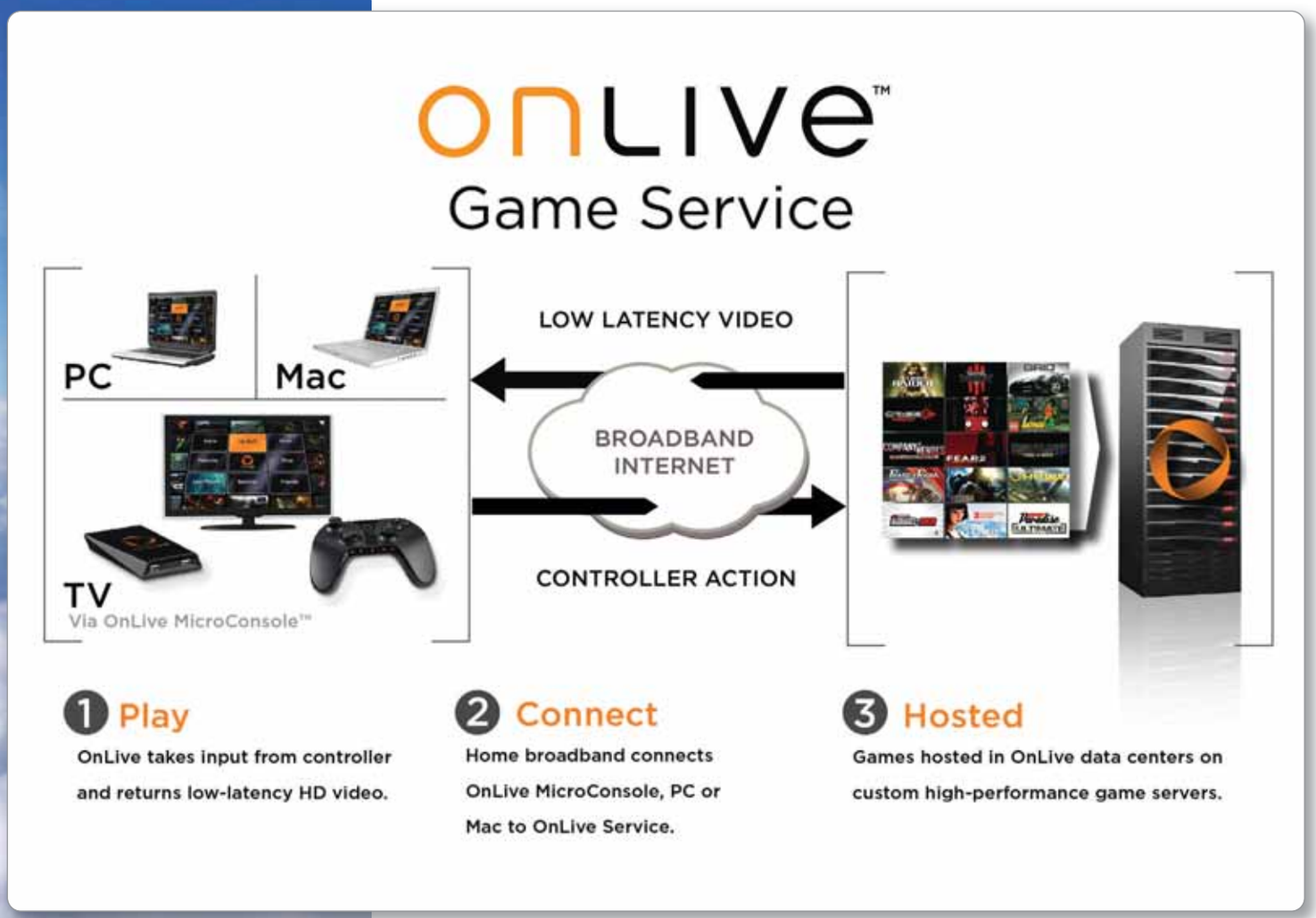
It grabbed headlines (a bunch of them cynical) at GDC, but new cloud-based gaming service OnLive and its cheap 'MicroConsole' plans to totally subvert the games industry model and take developers along for the ride. Can it live up to the hype? **Michael French** speaks to CEO Mike McGarvey…

Gizmondo, Phantom – these are the names being uttered in relation to OnLive. When are we going to see something concrete, such as a closed (or even open) beta that will prove beyond a shadow of a doubt that OnLive is real and works?
There has never been a service offering like OnLive, and we need time to better understand usage patterns and user preferences before the system is finalised and made available as a service. Such analysis is highly complex from both a technology and methodology perspective.

We are rolling the service out in phases, including several beta testing programs that will focus on getting more information about certain aspects of the service. We want to ensure that we are offering the best possible product when we make the service generally available. We expect our closed beta to begin later this summer with a wider, external beta following a few months later. That said, the timing on this will be very dependent on the feedback we get from earlier phases of testing.

It seems to us that your tech could work just as well with consoles as it could with PC. Are there any plans to bring OnLive's tech to the console space?
Yes, but not the traditional console. In addition to our Internet-based platform that runs on Mac and PC, we're also launching our own console: a sleek, inexpensive device we're calling the OnLive MicroConsole. About as small as a deck of cards, the MicroConsole can instantly deliver content directly to the TV. Unlike traditional gaming consoles, OnLive's MicroConsole evolves as games evolve, eliminating the need to upgrade the system and graphics card and completely avoiding frustratingly long downloads or installs. And unlike current consoles our MicroConsole is inexpensive to make!

So how much will the MicroConsole cost?
We're not releasing pricing information at this



How it works: OnLive reckons the service, which isn't just effectively a new console – it's console-agnostic given the way it unites TV, Mac and PC – will be easy to use

time, but we're not afraid to brag that it will be cheaper than competing consoles. We have a lot of flexibility about how we package the service and we feel our consumer offering will be very competitive.

Can third parties, or developers with an idea for a new game that uses an original controller, make peripherals for it?
Yes, most wired USB controllers will work with the platform. For the best wireless experience, however, we recommend that players use the OnLive wireless controller. As you know, wireless controllers inherently introduce lag. So, we had to develop a controller from the ground up that would give OnLive gamers immediate response.

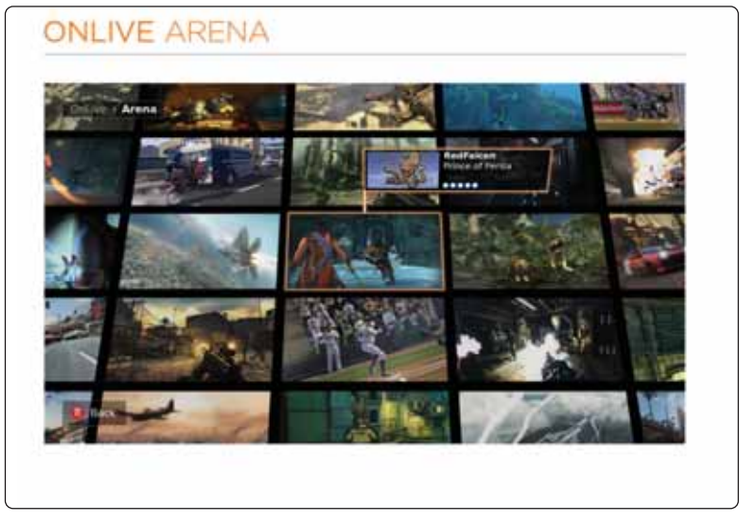
There's a lot of scepticism about the video encoding and streaming – what can you tell us about the technology that makes OnLive work?
OnLive works by taking input from your controller, keyboard or mouse and connects the player to the OnLive service. Then, the service's custom game servers render the game graphics. OnLive's proprietary video compression technology streams back low-latency video to the player's TV via the OnLive MicroConsole, or to a PC or Mac via a small browser plug-in. A proprietary compression algorithm and custom silicon make it possible for us to deliver games instantly over the Internet.

> ***"We're not afraid to brag that our MicroConsole will be cheaper than the competing consoles. We have flexibility and will be very competitive."***

Our revolutionary video compression algorithm was designed specifically for video games and can encode and compress video into data in about one millisecond. A custom-built silicon chip does the actual encoding calculations at the server end, and that information is decompressed at the gamers end, inside the MicroConsole for those playing on their televisions, or if someone is playing on Mac or PC, the decompression is handled within a small software client downloaded into a Web browser.

The data delivered from the game server to the MicroConsole or to a PC or Mac is proprietary and highly tuned to not only produce low-latency HD video, but it is designed to tolerate packet corruption, and pass through consumer-grade firewalls, routers and switches.

Surely the idea of a cloud-based service can be copied given there is no proprietary



OnLive had its full interface, driven by video and a unique UI, on show at GDC

hardware like the Wiimote, Sixaxis/DualShock or 360 and you 'just' need a server farm for it – so what's to stop a format-holder launching their own similar service in competition?
The technology needed to deliver games over the internet requires much more than a 'just a server farm'. If that were true, then someone would have launched a similar service years ago.

OnLive was an immensely complex engineering effort, and beyond that, it took years of testing in hundreds of homes to make it work seamlessly.

Beyond the underlying interactive video compression technology, OnLive's patents cover the layers of all the technology built on top of that compression that would be necessary to deliver a practical video game service offering.

Given the immense multi-disciplinary complexity of OnLive, the time that was required to address the practical execution issues, and the fact we have over 100 patents and patents pending, we think it is unlikely there will be another system like OnLive anytime soon.

How would a cloud-based distribution system change the way developers approach making games?
Well, for starters, they no longer have to develop for the lowest common denominator of hardware. They can basically assume that when their games release they will be running on the most technically advanced hardware available. This means that we should see richer, more robust worlds, better graphics, more depth and intensity of gameplay.

> ***"We expect to see people experiment with the type of content they deliver. Maybe that results in episodic games, or maybe how they handle pricing."***

And because it's all online, the platform is incredibly flexible. So, we expect to see people experimenting with the type of content they deliver, so maybe that will result in episodic games, or maybe that's how they handle pricing.

It's incredibly efficient and effective to develop for OnLive – with only one binary to reach PC, Mac and TV – that kind of reach, and 'ease' if you will of reaching gamers – is unprecedented. We think developers are really going to love it. Their games will be instantly available to a large market of gamers – be they PC, Mac or TV based.

Are developers already on board?
We're engaging with developers of all sizes. At GDC, we announced partnerships with major publishers like EA, Ubisoft, and Take Two. At the same time, we announced a partnership with 2D Boy, the 'indie' developers that created *World of Goo*.

The OnLive platform is very easy to develop for so we think that a lot of smaller developers will embrace it. And, because we offer a wholly online platform, we think that the smaller independents – who have more flexibility to be creative – will probably do a lot of experimenting with new types of gameplay and new models for delivering games. Basically, OnLive offers them an incredibly powerful, very flexible platform that allows developers to do what they do best: be creative. There are no boundaries. That's something I'm really very excited about personally.

Do studios need to take anything into account when making games for OnLive?
The only thing that they should be thinking about is: how do I take advantage of this

incredibly flexible and powerful system? We've set it up so that working with us should be simple. There is little cost to publishers to get their games running on OnLive; they can port their PC versions in a few weeks.

I think everyone is really enthusiastic about working with us. OnLive has the potential to completely alter the economics of the video game industry, offering more monetisation opportunities and enhanced consumer touch points. Our aim is to bring the content makers and consumers as close together as possible.

What needs to be re-developed on existing PC games to make sure they work on OnLive?

There are a few changes to the code as a result of being run on server class hardware with no disc drives, but the port is a fairly simple process that can be done in a matter of weeks.

The current demo shows established big brands that have debuted on console as well as PC – are you hoping to secure original exclusive IP for the OnLive platform?

In a way we have 'exclusive' games for people with Macs and low end PC's. *Crysis* is a great example. The game isn't currently developed for the Mac and doesn't run on low end PC's yet both of those user groups will be able to play the game on OnLive, because we do all the computing in our server centres in the cloud and it just runs on their hardware.

Also, the OnLive platform opens up several new avenues for game development and distribution – episodic games that update throughout the year, for example – and we expect games developed specifically for the OnLive platform to be available in the near term. Because we are the only platform that is wholly online, those games would – by necessity – be available only on our service.

> ***"Our revolutionary video compression algorithm was designed specifically for games and can encode and compress data in about one millisecond."***

When will it launch in the UK or Europe? Will the UK's slower broadband speeds affect the roll out? Will you need infrastructure partners to launch outside the US?

For the time being, we're focused on the U.S. market and our consumer beta program and consumer launch later this year. Europe is a very important region for us and close to my heart (obviously!) but we need to launch in the US before we announce specifics plans for Europe.

Aside from the questions regarding the technology, there's also a big question mark hanging over the cost of the whole operation. Is OnLive going to be affordable to the masses or more of a 'core' gaming luxury? Can you give us any indication of pricing?

We can't say a lot about our pricing strategy quite yet, except to say that games will pay a basic monthly fee for access, and that the cost of the MicroConsole will be much less than competitive consoles. With respect to the games sold on the service, we expect them to be priced competitively.

Regardless, we're confident that the economics of the OnLive system will be favorable for consumers. Essentially, we've removed the reliance on high-end hardware, so gamers will never need to upgrade their PC or buy another console. So OnLive is very cost-effective, particularly over time.

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Conference Keynote David Jones – creator of Lemmings and Grand Theft Auto, and founder of Realtime Worlds will share his experiences and talk about his forthcoming title APB

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The Evolution of Fable's Challenging Hero
Ian Faichnie and Si Jacques, Lionhead Studios

Art Directing Customisable Characters for International Markets: A Case Study Comparing South Korea to America
Jimmy O'Ready, Realtime Worlds

AUDIO

Guerrilla Tactics: Designing Audio for Killzone 2
Mario Lavin, Guerrilla Games

Real-time Audio: Context Is Everything
Kenneth Young, Media Molecule

BUSINESS

What the Music Industry Can Reveal About Digital Distribution
Simon Watt, Universal Music Group

Bizarre Creations: Evolving a Racing Franchise
Chris Downey and Ged Talbot, Bizarre Creations

CODING

Driving 3D TV's Using Current Generation Consoles
Aaron Allport and Andrew Oliver, Blitz Games Studios

The Wizards of OS: I Don't Think We're in C++ Anymore
Doug Wolff, Eutechnyx

DESIGN

It's Time for Music Games 2.0
Masaya Matsuura, NanaOn-Sha co., Ltd

Tom Clancy's EndWar: An After Action Report
Michael De Plater, UbiSoft

EVOLVE

PlayStation®Home – First Term Report
Peter Edward, Sony Computer Entertainment Europe

User Generated Content – The Legal Consequences
Tahir Basheer, Sheridans

PRODUCTION

How Social Networks and Emerging Platforms and Technologies Will Re-shape Gaming's Oldest Genre
Struan Robertson, Gusto Games

Management for Evil Geniuses
Imre Jele, Blitz Games

THE DEN

Designer mash-ups:
David Braben and Peter Molyneux play Populous and Elite
Masaya Matsuura and Jenova Chen play PaRappa the Rapper and Flower

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The Finnishing

The home of Nokia, Habbo Hotel and Max Payne continues to emerge as a dominate force in game development, thanks in part to government funding of technology companies. Eager to learn more, **Will Freeman** visited Helsinki to investigate the benefits of setting up a studio in Finland…

Touch

To the casual visitor passing through, Scandinavia's Russian neighbour certainly feels like a quiet and peaceful country.

With only 5.3 million people calling Finland home, the huge expanse of northern Europe is the continent's second least densely populated country – something apparent as you stroll Helsinki's hushed, spacious streets.

KooPee Hiltunen, director of Finland's Neogames organisation, which promotes the nation's games industry, jokes that the population of his homeland thrive in the silence that other Europeans find so uncomfortable. Despite his jovial tone, there's certainly a modesty to Finnish culture, and a happily tranquil work ethic that veils a feverishly productive creative sector.

The country is of course the home to mobile phone giant Nokia, and the phenomenally popular game-based social network Habbo Hotel, but its tech industry output doesn't stop with a duo of high-profile examples.

Finland has a long established tradition of game making, in part thanks to a healthy hobbyist scene. Making rolling demos to showcase technical skill on platforms new and old continues to prove exceedingly popular in Scandinavia, and the festivals and events that celebrate Finland's 'demoscene' output provide a fertile and talented pool of young developers for studios looking to recruit as they expand.

"The games industry has developed fast here in the past ten years," enthuses Hiltunen. "In 1999 there were only a dozen game companies in Finalnd, or perhaps less than that. Now we have more than 50 companies. This week alone I am meeting with two new start ups, and I have had discussions with seven or eight start-ups already this year, so there's quite a fast pace here."

As impressive as that growth may be, Hiltunen's statistical description is perhaps another example of Finnish modesty and understatement. In fact, the country's game development industry is now delivering one of the nation's biggest cultural exports, according to Neogame's weighty report on the region's industry in 2008.

With the industry centred in Helsinki, the sales of Finnish-made games are dominated by the export business, which has recently delivered as much as 87 per cent of the sector's total turnover.

"Our industry is indeed mainly exports, and the reason for that is of course because Finland has quite a small domestic market," says Hiltunen, who later reveals that in 2007 the Finnish games industry exports reached around €69 million, and €75 million in 2008. "When we talk about our cultural exports, we can say that games are the most significant in Finland, money-wise."

After an early boom in mobile content, most of Finland's studios now produce console and PC games, which usually find their way to the US and European markets. While games like *Max Payne* are among the Scandinavian territory's most famous exports, Bugbear's *Flatout 2* offers a more typical example of the distribution of the country's games across the globe. While as few as 14,000 copies of the destructive racer sold domestically, global sales totalled almost one million units, meaning 98.6 per cent of sales took place overseas.

With a healthy export business, and as a home to companys like Helsinki-based Habbo Hotel developer Sulake – valued at $1.25 billion and listed as the ninth most successful digital start-up in the world – it's clear that Finland is enjoying a boom in game development.

It's a little less obvious why, but looking a little closer at the culture and industry of the country that bought the world Formula One

Above left: Neogames' KooPee Hiltunen
Above right: Tekes' Mari Isbom

Sulake Corporation

Location: Helsinki
Headcount: 300+
Brands: Habbo Hotel, IRC-Galleria, Bobba
Specialty: Social Networking

If Sulake's name isn't immediately familiar, that's because it's most profitable brand is so popular that it's hogged all the limelight.

It is hard to dispute Habbo Hotel's success, which was listed as the world's ninth most valuable digital start-up in the SAI 25 list, worth an estimated $1.25 billion.

"I started the company in 1999 with a friend called Aapo Kyrola," says Saluke founder and chief creative officer Sampo Karjalainen. "It was just a hobby thing and we made a simple online application for a friend's band – it was a music project and a game as well.

"It was just a meeting place for the band members and fans which we made for fun, but after released it grew hugely popular, and we attracted users from outside Finland and worldwide."

At that point the work of the two young Finns attracted the attention of the CEO of advertising company Taivas. Working with the Taivas group's online arm, in 2000 Karjalainen and Kyrola created a light hearted online game that combined a simple snowball fighting mechanic, social networking and a text message-based commerce system.

"Then we formed Sulake in May 2000, and built our business plan and started to think about standalone services. We made a commercial version of Mobile Disco as Hotel Kultakala. In February 2002 we took Hotel Habbo international, and it's grown from there."

Grown is something of an understatement. By the end of 2004 Sulake had spread Habbo Hotel's combination of gaming and social networking to four different continents, and boasted a workforce of over 160. The company revenue in 2008 was around €51 million, and the employee headcount has risen to beyond 300.

Habbo Hotel's userbase, which is now somewhere in the region of 129 million strong across 31 countries, consists mainly of 12 to 16-year-olds – but Sulake isn't't stopping there.

In 2007 Sulake acquired Dynamoid, owner of Finland's biggest social networking site, meaning it now holds the attention of 70 per cent of Finnish population aged between 15 and 24 years old.

www.sulake.com

champions, Moomins and orange-handled scissors, the benefits studios enjoy there is clear. The fact that studio space in Finland costs a quarter of what it does in parts of the US, and that the country is something of a geographical gateway between Asia and Europe, is just the beginning.

"I think the industry here is in fairly good shape," says CEO and co-founder of Helsinki's Recoil Games Samuli Syvähuoko. "There are a couple of companies that have had problems, but there's a closeness here. It's a small industry, and everybody knows everybody, and we have this monthly meeting where pretty much all the industry in Helsinki goes to a bar and talks everything over."

However, as the industry in Finland continues to grow, the intimacy Syvähuoko speaks of so warmly will soon be lost, and it will take more than a few drinks at a local bar to fuel the ongoing progress. Thankfully for Recoil and its contemporaries, there's a steady influx of talent to promote the expansion in the former Russian Grand Duchy, as Syvähuoko explains.

"There's a very high standard of living around here, and that's something that has attracted quite a few great employees to join us over the years. I think that it helps that it's a beautiful country as well, and of course we have great government support too."

Open streets, friendly inter-studio relations and a high standard of living are all well and good, but Syvähuoko has touched on what many consider the real reason for Finland's success as an emerging development stronghold. While government tax-breaks of the kind famously enjoyed by Canadian studios are non-existent, thanks to the work of an organisation known as Tekes, Finnish developers are eligible for various funding benefits paid for by the authorities.

PAPER DOLLS

The country's traditional manufacturing trades, such as paper production and forestry, have long been on the wane, prompting the government to look to newer industries to bolster a relatively healthy economy. As a result of that thinking, an organisation by the name of Tekes was established by the authorities.

"Tekes is the Finnish funding agency for technology and innovation, and we are essentially Government organisation for research and development in Finland," says Mari Isbom, Tekes' senior technology advisor for its software and digital media division. "We work with a number of different companies, and game companies are a big part of that."

Tekes specialises in promoting the Finnish technology sector's more forward thinking projects, meaning it can offer selective project funding to many of the nation's game studios.

"We encourage innovative and risk intensive projects, and we really are very selective," reveals Isbom. "We don't take anything either – just the most innovative and newest ideas. Our funds come from a budget at the Ministry of Employment and Economy from the Ministry of Trade and Industry."

Despite providing low-interest loans and grants for a number of industries distinct from game making, a substantial amount is still available to developers. Tekes boasts a budget in 2009 of almost €600 million, much of which it can put towards assisting the relatively low number of companies designing and creating games in Finland. Tekes is a non-profit organisation, and as such take no equity or IP ownership, and has no sway over decisions that are part of the creative process.

"Innovation is very important to us," affirms Isbom. "So we look at research and development quite broadly, meaning we can finance game development, and the likes of feasibility studies and market studies. Additionally, we also finance industrial projects as well as research projects at universities, meaning we have a great deal to offer."

In 2008, Tekes supported almost 2000 projects with a €516 million budget, meaning game companies faced strong competition from other risk intensive technology sectors out to secure financial aid. However, as studios like Housemarque, Digital Chocolate and Secret Exit continue to showcase the capability of Finnish developers and meet with commercial success and critical acclaim, the government is offering increased benefits to an industry deemed to be extremely important to progress in the country.

"Tekes has identified games as a strategically important research and development area and thus one of the key focus areas. Around €10 million were targeted

Digital Chocolate Sumea

Location: Helsinki
Headcount: Not disclosed
Brands: *Tower Bloxx, Pictoplay, California Gold Rush*
Specialty: Mobile, PC, Console

By Finnish standards, Digital Chocolate's spacious Helsinki office Sumea is a relatively noisy place. That is, there's a gentle murmur of activity in the air, and enthusiastic brainstorming and discussion is occurring in the many booths that house teams working on new titles.

"Our focus since we started has been on creating original, innovative, quality games," says president of studios Ilkka Paananen. "We started from mobile, many years ago, but in last two years we have been porting our products to other platforms."

One of those platforms is Xbox 360, which is currently preparing to host a new version of Digital Chocolate's popular *Tower Bloxx* IP, but it is iPhone that is really stirring the huge team's imagination.

"We're really excited by the iPhone as it totally changes everything. In the US market Digital Chocolate has had four games feature as the most downloaded application. We've now made it public we've made $10 million on iPhone," says Paananen.

Conducting a tour of the Helsinki office, vice-president of studios Jami Laes explains: "We've got three studios and Helsinki is the biggest. It's a reasonably big operation, with eight or nine teams, so we work around a Scrum-based development system. There's a flexible matrix organisation of our teams here. We also keep all our proprietary tech absolutely internal, essentially so we can keep the advantage over our rivals.

"We have regular days where each team designs and makes a playable game prototype in just one day, and we host many other single-day initiatives. Games made in a day often make for easily grasped concepts, which is essential for the kind of content we develop," says Laes.

Paananen finishes his studio tour with some advice to others. "The best way to build your own brand is to build success on success consistently," he says. Easier said than done. Digital Chocolate, which was founded in 2003 by EA veteran Trip Hawkins, is a huge, talented company with enough reputation to court leading talent from across the globe.

Along with offices in Bracelona and Bangalore, Digital Chocolate is headquartered in San Mateo, California.

for game companies in 2008 via the Verso programme," says Isbom.

Verso, towards which Tekes is providing €56 million of a €120 million budget, is a market-orientated initiative specifically designed to boost the success of the country's software industry by networking both businesses and research internationally. Its description may sound much like the hyperbole of an excited organisational body, but the reality is already proving a number of game companies with support, including Bugbear, which worked on its Bugbear Game Framework development platform within Verso.

In 2007 alone Tekes subsidies covered almost 30 per cent of the research and development investment of game studios in Finland, and 24 of the 45 companies surveyed in 2008 by Neogames indicated that they had received Tekes funding for R&D, exports or both in the two years the study covered.

Along with the Avek digital demo funding programme, support from the Nordic Game organisation, and EU Media Programming financing assistance, Finnish developers enjoy benefits some of their equivalents in other territories could only dream of.

It's tempting to paint a picture of Finland as a Mecca for developers, untarnished by the problems all too familiar to other countries, but even in this land of promise there are problem areas.

While 40 per cent of Finnish game companies are owned in part by investors, Hiltunen confesses that securing cash in the country isn't without the problems faced elsewhere: "In Finland it has been very difficult to get the investors for games because it's still a hit industry, and because we don't have all the right industry tools."

"Research and development for games is sometimes hard to explain to the Finnish Government," adds Isbom. While the brain drain of the 1990s that saw talent leave the country is now a thing of the past, there's still another problem far more surprising in a country famed for the quality of its forward-thinking education system. According to Hiltunen, at present in the entire country there are only 100 students studying games.

While the impact of games degrees and courses continues to divide industry commentators globally, in Finland the relationship between education and development in something currently in the sights of organisations like Tekes and Neogames, as they sketch out a plan for the future of the industry.

"We should concentrate on games education at the same time as investment in funding," sates Hiltunen. "Looking at the Quebec model, we can see that it takes many years before investment and funding has a positive effect, but it is something we continue to try for.

"We are trying to develop our environment for game studios so that those companies like where they are and want to stay."

Put like that, it sounds so simple.

FINANCIAL AID AT-A-GLANCE

Finland's Neogames has gathered a wealth of information on the financial support available to developers in various countries. Using that information, *Develop* has taken a look at the benefits of working in a range of locations.

Finland
- Government body Tekes offers grants and loans for game development, R&D and export
- Finnvera offers non-specific loan guarantees
- The Promotion Centre for Audivisial Culture has a small demo fund for games
- The Verso program helps finance tech companies and supports international networking

UK
- Generic R&D tax credits, which Neogames claims typically return four to five percent of development expenditure
- Modest generic export assistance for new exporters
- The government provides around £1.1 million for game R&D and pilot projects

Canada
- Generic R&D tax credits with a return rate 20 to 35 per cent.
- Some smaller grants from the likes of IRAP support R&D
- Famously, Montreal subsidises as much as 35.7 per cent of games companies salaries for five years, while offering loan guarantees, tax credits and income tax holidays

France
- CIJV National games production tax credit can cover 20 per cent of most production costs on qualified games.
- National Video Game Fund funds up to 35% of game prototypes
- R&D tax credits rebate up to five per cent of R&D expenditure
- Smaller grants, loan guarantees and export grants

(The above information was gathered and provided by Neogames)

Secret Exit

Location: Helsinki
IPs: Zen Bound, Spin
Specialty: iPhone and download

Formed in 2006 by Jani Kahrama and Jetro Lauha, who describe their development skills at the companies inception as 'modest', Secret Exit is one of Finland's iPhone success stories.

Despite downplaying their ability, Secret Exit clearly is very capable, having enjoyed critical acclaim and commercial success with iPhone titles *Spin* and rope-tying game *Zen Bound*.

"We started with our two person team, and we spent a year making mistakes and learning what to do and what not to do," admits head of studio Kahrama.

In the first quarter of 2008, Secret Exit evaluated all the key platforms while creating game concepts, and took a long look at developing for WiiWare. However, as the iPhone arrived, Kahrama and his team decided that Apple's new platform offered far more potential for their output.

"iPhone changed the way people think about mobile gaming, which is fantastic, as our team has a mobile development background," says Kahrama. "When it came out, we took a look and decided to go with it. We're really happy with that decision, and for some reason it seems that the public likes the idea of bondage.

"We have learned that visibility is very difficult and very important. We figured how to do things better, and media exposure is really important, but really we've learned that there's not much that we can do about it."

www.secretexit.com

Housemarque

Location: Helsinki
IPs: Super Stardust HD, Rope
Specialty: Console downloads

As one of the first game companies established in Finland, Housemarque is a relative old-timer in the Helsinki community, having formed in 1995.

An amalgamation of early Finnish developers Bloodhouse and Terramarque that started making Amiga games like *Super Stardust*, Housemarque now focuses on downloadable games for consoles.

Having enjoyed early success on Sony's PSN service with *Super Stardust HD*, the Housemarque team have carved a niche in designing what they call small high end games.

"We aim to create games that are small in size that are still of triple-A quality," says CEO and co-founder Ilaro Kuittinen, who is also chairman of the board of the Association of Finnish Game Developers.

So far Kuittinen's team have delivered on that promise, with *Super Stardust HD* ranked as the third best seller on PSN in 2008. Two pieces of PSN-exclusive original IP are in progress for 2010, as is a multiplatform game for a leading publisher.

Housemarque is also planning on moving towards self-publishing with *Rope* – a physics-based game already approved in concept form for PSN. Kuittinen also revealed that his studio hopes to move the game to Xbox 360, and possibly WiiWare and iPhone.

This may be a bold move as, while Housemarque will crucially retain complete ownership of its IP, it will lose the marketing assistance normally provided for by an external publisher like Sony.

www.housemarque.com

Everyplay

Location: Helsinki
Headcount: 5
IPs: TBC
Specialty: Social networking

A start-up specialising in games that run within social networks, Everyplay describes itself as currently running in stealth mode.

The studio is presently working on a concept that combines real world avatars made of paper with gaming communities based in the likes of Facebook. While little has been confirmed, Everyplay hopes to allow for interconnected play between MySpace, Beebo, Facebook and others using microtransactions to fund the concept, which is due for a soft launch sometime soon.

Everyplay's managing director Jussi Laakkonen is not new to the games industry, having worked for Bugbear Entertainment, which created the *Flatout* series of games.

"I'm honestly complete fed up with working with publishers," confesses Laakkonen. "I've tried for four-and-a-half years trying to make it work, and it's just a really hard relationship for developers, especially today. Unless you're Bungie or Epic or one of those with financial freedom, it's always tug of war."

Laakkoneni is actually a man more interested in development far closer to the grass roots level, and is a proactive proponent of Scandanavia's demoscene.

Laakkonen and his colleagues at Everyplay are closely involved in organising Assembly, which attracts over 5000 demoscene fans to Helsinki to share demos, and decide on the best ou put of the year, which is sometimes of surprisingly high quality.

www.everyplay.fi

Ironstar Helsinki

Location: Helsinki
Headcount: 6
IPs: MoiPal
Specialty: Social networking

Based in a humble office neighbouring a tattoo parlour, in a secluded courtyard dominated by a huge classic car, it's hard to imagine you'd find a thriving developer behind Ironstar's front door.

However, this young team – which chief executive officer Joakim Achrén admits is still in start-up mode – is busy establishing itself with an increasingly popular social gaming world.

MoiPal combines social networking with task management gameplay, and already boasts 200,000 users despite the fact that Ironstar were only formed in 2006.

Although a direct rival to Habbo Hotel, Ironstar has attracted brands such as EMI to create in-game spaces, and has secured several deals with celebrities and musicians that, in Finland at least, are exceedingly popular.

Living in the shadow of the mighty Habbo Hotel of course has its downsides, but Ironstar has managed to make use of sharing the same city as Sulake. "Habbo of course get a lot of the talent as well as a great deal of the market share, and so we've even been recruiting from schools, but those people have been great, and have some very good, original ideas."

Ironstar has implemented an impressive monetisation model, a publically available developer API, and a trophy system – all of which are far more typical of a substantially more sizable and experienced team.

www.ironstarhelsinki.com

Sauma Technologies

Location: Helsinki
Headcount: 20
IPs: Hours of War
Specialty: Strategy MMOs

Visiting Sauma's modern office in Helsinki, you're greeted by shelves piled high with military board games, WWII model kits, tomes listing statistics of army vehicles and pencil sketches of weapon-clad men in uniform.

It's clear that the team is working on a fairly hardcore strategy game, but Sauma is also responsible for *Stream Garden* – a casual game based around creating flowers.

"You could say we're a little schizophrenic," jokes the studio's producer Miikka Lyytikainen, but there is currently a clear focus throughout the team on *Hours of War*.

The game itself is an in-depth and rather complex looking combination of MMO, social network, turn-based strategy title and cross platform rich-media experience. Players can involve themselves at various levels of the battle, and ultimately the studio hopes to cater for both browser users and those with mobile phones.

Despite the game's conventional theme, Sauma CEO Andreas von Koskull is confident his team are creating something fresh: "The game business is certainly a creative space, but increasingly there is little innovation, which we wanted to move away from."

"Poor cross-platform mobile gaming and static browser-based strategy games are all too common, and we felt it's time for a change. We're proud to have secured funding for our game at the beginning of the year, and we're looking at building two more related IPs on our platform."

www.saumatechnologies.com

Recoil Games

Location: Helsinki
Headcount: 30
Brands: Earth No More
Specialty: Console/PC games

Recoil is currently working on *Earth No More*, which was recently embroiled in a lawsuit that had sadly silenced the studio. However, now the developer is talking about the game again, on which it is working with 3D Realms' offshoot IP factory Radar Group.

A benefactor of the various Finnish and EU grants, details about *Earth No More* are still relatively sparse, but the game is nevertheless looking increasingly impressive.

A visit to Recoil does offer an interesting insight into the inner workings of Finnish developers. Typical of most studios that have opened their doors to *Develop* in Finland, the office is silent, with heads buried in computers. "We like to work in silence here," says Samuli Syvähuoko. "It's just the way things are done.

"We also believe very strongly in avoiding crunch. We don't let people do that here that much. Sometimes, but only if it is really important. In Finland staff are given five weeks of holidays and other vacations on top of that, and we'll always respect that. So when people are here, they work. And hiring is a vigorous process, as you can't fire people in Finland."

Recoil continues to work on *Earth No More*, complete with its internally-developed renderer, and a currently confidential game engine – more is expected to emerge in the coming weeks.

www.recoilgames.com

www.centroid3d.com
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BUILD

THE LATEST TOOLS NEWS, TECH UPDATES & TUTORIALS

"iPhone is big, but new mobile platforms will emerge and won't be easy to develop for."
GarageGames talks tech, p40

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Engines for change

An in-depth guide to the market for third-party game engines, p40

EPIC DIARIES: UNREAL SHARPENS WOLVERINE'S CLAWS > P40

Start your engines

Now that we're mid-way into the current console generation, what are game engine developers doing to distinguish themselves from the competition? **Ed Fear** takes a look at the state of the sector…

Twelve months ago, when we last took a birds-eye look at the game engine market, the focus was very much smoothing out the pains of cross-platform development. Epic was focusing all of its efforts on the PS3 version of UE3, while Emergent was crowing about its multi-core friendly Floodgate technology.

One year on and the situation is a little different, both inside the market and externally. Developers across the world have downsized, but the public's appetite for games remains as fierce as it ever was. Those left behind at streamlined studios still have to deliver envelope-pushing games with smaller teams and tighter budgets, and many of those cast aside need to regroup and strike out on their own. Now everyone needs nimble, flexible, rapid game engines.

"Developers, designers and engineers are all full of game ideas and innovations that are just waiting for a chance to be expressed," says Emergent's Geoffrey Selzer, whose new product Gamebryo Lightspeed is geared towards rapid prototyping.

"Particularly in these difficult economic times, it's important to get your ideas in front of potential publishers or investors as soon as you possibly can. Solutions that enable game designers to get projects up and running quickly, and those that provide a flexible solution for getting their creative ideas put in front of publishers faster – so they in turn can get to funding faster – are going to be fundamentally necessary. Development teams will be refocusing energy on creating unique, immersive gameplay and finding new ways to entertain audiences, coupled with a need to reduce development and budget risk."

> ***"iPhone stuff is very big right now, but new mobile platforms are likely to emerge, and they won't be easy to develop games for."***
>
> ***Brett Seyler, GarageGames***

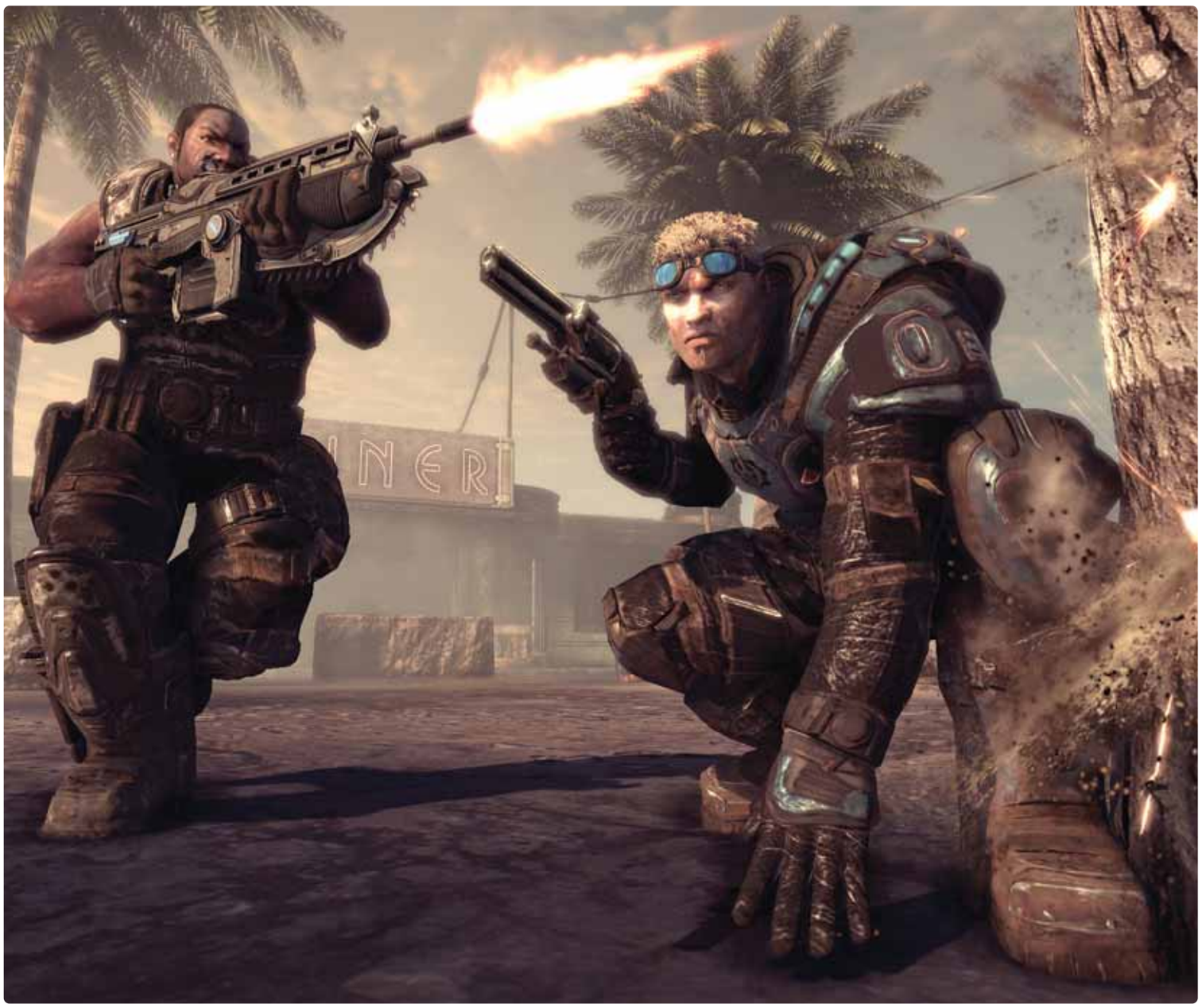
Each of the 10 engines featured in this month's round-up (*starting over the page*) has, in its latest release, improved its toolset to enable rapid iteration (if it wasn't using that as its USP anyway). Gone are the days of twiddling your thumbs waiting for the latest build to tick along and then almost inevitably fail; now designers, artists and programmers can instantly change object placement, parameters and even whole scripts without requiring a recompilation.

MOBILE WORKFORCE

Another growth sector has been in those targeting mobile platforms – specifically the iPhone – and web browsers. "These two sectors are still just in their infancy, and have fantastic growth potential," says GarageGames' Brett Seyler.

"Obviously iPhone stuff is very big right now, but new mobile platforms are likely to emerge, and they won't be easy to develop games for. Companies like Zynga and Playfish are doing great with just Flash technology for games on Facebook. The industry is just

Undeterred by the economic climate, Terminal Reality is releasing its Infernal Engine as a new contender



Gears of War 2 was yet another effective advertisment for Epic's Unreal Engine 3

starting taking note of this space, but the potential is pretty limitless."

Mainly, it's the more indie-focused engines that are exploring this area – Unity and GarageGames' Torque 3D are the only two engines with built-in support for running through browsers and the iPhone – but the opportunity for growth in this sector is strong, especially as potential rivals to the now-ubiquitous Flash.

"These new technologies are the strongest and fastest growing business models," says Unity CEO David Helgasson. "And that's what we've geared Unity towards."

In that regard, it makes sense that those middleware firms targeting indies and small developers are the ones to address the opening possibilities of in-browser and iPhone digital distribution, given that their customers will need access to distribution models with low barriers to entry.

RECESSED MEMORIES

Ask middleware companies how they're faring in the recession and you know the answer already. But, the reasoning is strong: the technological backbone required for next-gen development is still as precariously high as it's ever been for start-ups, but attempting to find a publisher that'll bankroll you for a year while you get up to scratch is much more unlikely. "Teams should choose to use a game engine because the technology and service deliver what they need to make the best game possible," explains Carl Jones, CryENGINE's director global business development.

"This rule applies in any economic circumstances; but clearly using a third party engine will save you a technology investment to maintain a competitive quality in your game and reduce the development risk significantly."

DOWN-TURNAROUND

But rather than remaining buoyant, some are going as far as to say that the economic downturn is actually a blessing for middleware companies.

US developer Terminal Reality has gone as far as to launch a brand new competitor into the engine ring – the Infernal Engine, which powers the firm's eagerly-anticipated *Ghostbusters* game – at a time when many are scaling back their ambitions. "The current turmoil in the video games industry is actually going to drive engine middleware sales," asserts Joe Kreiner, the firm's VP of marketing. "We're seeing lots of layoffs and companies going out of business. As these people reform into new studios, they'll be more inclined to use engine middleware, rather than try and re-create technology mid-way through the console cycle. Overall demand for video games is still strong, and games need to be created to meet that demand."

GarageGames' Brett Seyler agrees, but warns that studios need to make sure that the price is right.

"I would definitely look at licensing technology in this environment, but I'd be pushing harder for flexible payment terms and bigger price breaks. The build vs. buy question doesn't even merit discussion for most platforms until you're at least a couple of hundred people," he adds.

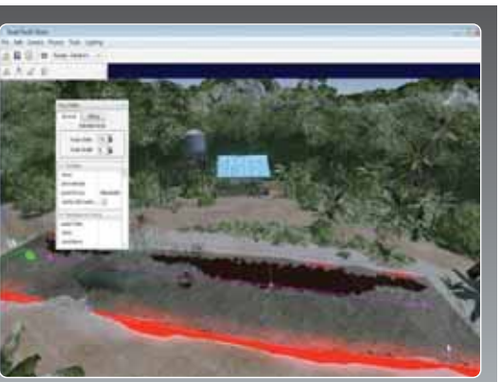
"When we made the decision to develop Torque internally, there was nothing like it below several hundred thousand dollars. Now there's competition and better options for developers on a budget. I don't think there's ever been a better time to license engine technology than today."

THE TOP 10 GAME ENGINES

Know you want to pick an engine but not sure which to choose? **Ed Fear** rounds up ten of the most innovative and popular game engines on the market today…

TORQUE 3D

Developer: GarageGames
Platforms: PC, Mac, Xbox 360, Wii, iPhone, PS3, PSP
Browser support: Yes
Cost: PC/Mac/Web: $1,000 (indie, unlimited projects); $4k+ (studio licence, unlimited projects). iPhone: $500+ per seat. Console: undisclosed.
Published titles: *Penny Arcade Adventures, Fallen Empire: Legions, Buccaneer, Dreamlords, Marble Blast Ultra*
Titles in development: Unannounced titles from EA, Bioware, Ubisoft and more
Middleware integrations: FMOD, PhysX, ODE, Pixomatic, pureLIGHT



It might have an indie-friendly price tag, but that doesn't mean that Torque 3D only powers low-end games – as the screenshots here attest. The road editor (right) is a high-end feature

The latest generation of GarageGames' Torque engine, the slightly anachronistically-named Torque 3D, is gearing up to take back some of the market share that the firm – admittedly one of the very first companies to dual-target the indie/hobbyist and professional markets – has lost to competitors of late.

With a proven tech backbone that's already available on multiple consoles – with PSP and PS3 set to join the crowd later this year – the focus for Torque 3D is the toolset. "It's been completely overhauled, and we've focused particularly on the content pipeline for ease-of-use and iteration," says the company's Brett Seyler.

As such, as well as a robust COLLADA import pipeline, all assets are updated live in-engine from external tools, allowing for zero-second asset iteration. The world editor has also been completely rewritten, offering advanced editors for materials, decals and, most interestingly, rivers and roads.

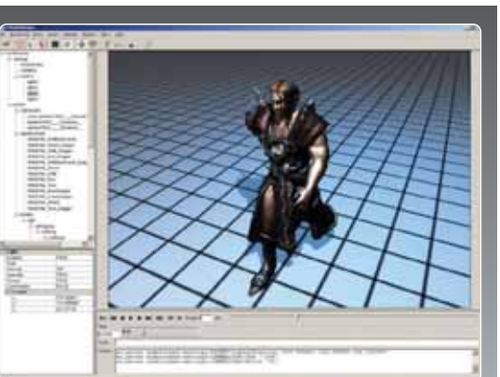
That doesn't mean that high-end graphical effects have been overlooked, though. The lighting model has been upgraded to a hybrid lighting model which it calls 'light pre-pass rendering' that the firm says is 'similar to CryEngine's', supporting advanced effects such as screen-space ambient occlusion and light rays, soft particles and advanced wetness and precipitation shaders.

Although high-end features are a focal point for Torque 3D, the company is still putting as much focus as ever on low-end hardware, specifically netbooks, citing good performance on Intel 950 chipsets. The mass-market penetration is also targeted with the engine's new Web Publishing features, based on technology GarageGames developed for its InstantAction web portal, which offers native performance through browsers.

CONTACT: 245 West 5th Ave. Eugene, OR 97401, United States **Phone:** 541-345-3040 **E-mail:** licensing@garagegames.com **Web:** www.garagegames.com

VISION ENGINE 7.5

Developer: Trinigy
Platforms: PC (DX9 & 10), Xbox 360, PlayStation 3, Wii
Browser support: No
Cost: Available upon request
Published titles: *Desperados 2* (Atari), *Emergency 3 & 4* (Take 2), *Warlord* (Neowiz)
Titles in development: *Dungeon Hero* (Firefly), *Arcania – A Gothic Tale* (JoWood), plus unannounced Ubisoft and Neowiz projects
Middleware integrations: Bullet physics, Digital Molecular Matter, FMOD Ex, Kynapse, morpheme, NetDog, OpenAL, PhysX, ProFX 2, Quazal Net-Z, Scaleform GFx, SpeedTree, xaitEngine



Despite our screenshots, the Vision Engine does more than just swords'n'sorcery – one of its major strengths is how genre agonistic it is

Trinigy's Vision Engine continues to pick up pace in the international market, and is actually leading in some respects (it's the first engine to integrate Pixelux's Digital Molecular Matter, as used in LucasArts' *Star Wars: The Force Unleashed*, for example).

Although it might not be a name with the same clout of Unreal, its strongly genre-agnostic structure is clearly finding more and more fans across the industry. Version 7.5 – released earlier this year – adds a complete DirectX 10 engine that makes 'full use' of the DX10 feature set, as well as an enhanced PhysX integration that allows visual editing of physical properties and joints. The engine's event and trigger system have also been fully integrated into the editor, and Wii support has also been overhauled.

"The feedback we get from our 100-plus licensees is that Vision is simply the best overall package," says Dag Frommhold, managing parter at Trinigy. "The engine is completely genre-agnostic and is flexible enough to adapt to almost any project's needs, whether it's a casual game or triple-A title."

Much effort has also been placed into Vision Engine's multi-platform capabilities, with extensive optimisations provided for each platform. Scenes and models can be examined live on the actual machine for instant on-target viewing, while console-specific features – such as SPU balancing on PS3 and direct GPU to memory export on Xbox 360 – ensure that performance is equal on comparable targets.

Finally, extensive documentation is available, including over 60 sample applications – ranging from concepts as simple as Hello World to efficient use of multi-threading. A number of sample scenes are also provided to demonstrate powerful features to artists, and video tutorials can also be downloaded from the Trinigy website.

CONTACT: Trinigy GmbH, INKA-Businesspark, Arbachtalstr. 6, 72800 Eningen, Germany **Phone:** +49 (0)7121 986 993 **E-mail:** sales@trinigy.net **Web:** www.trinigy.net

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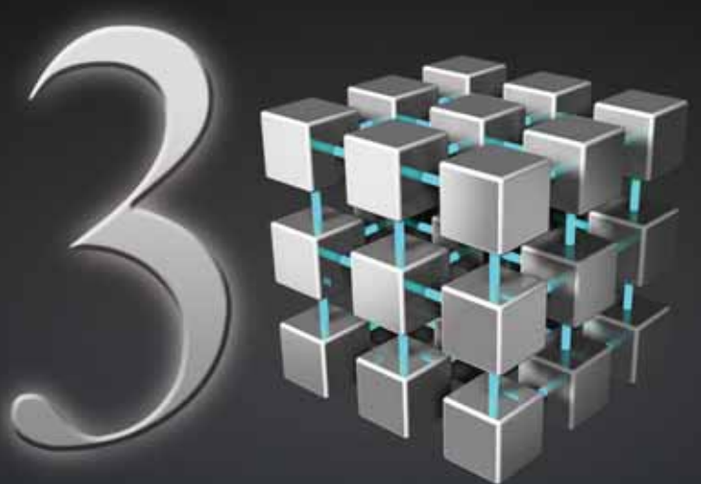
The gaming industry doesn't have to be a puzzle



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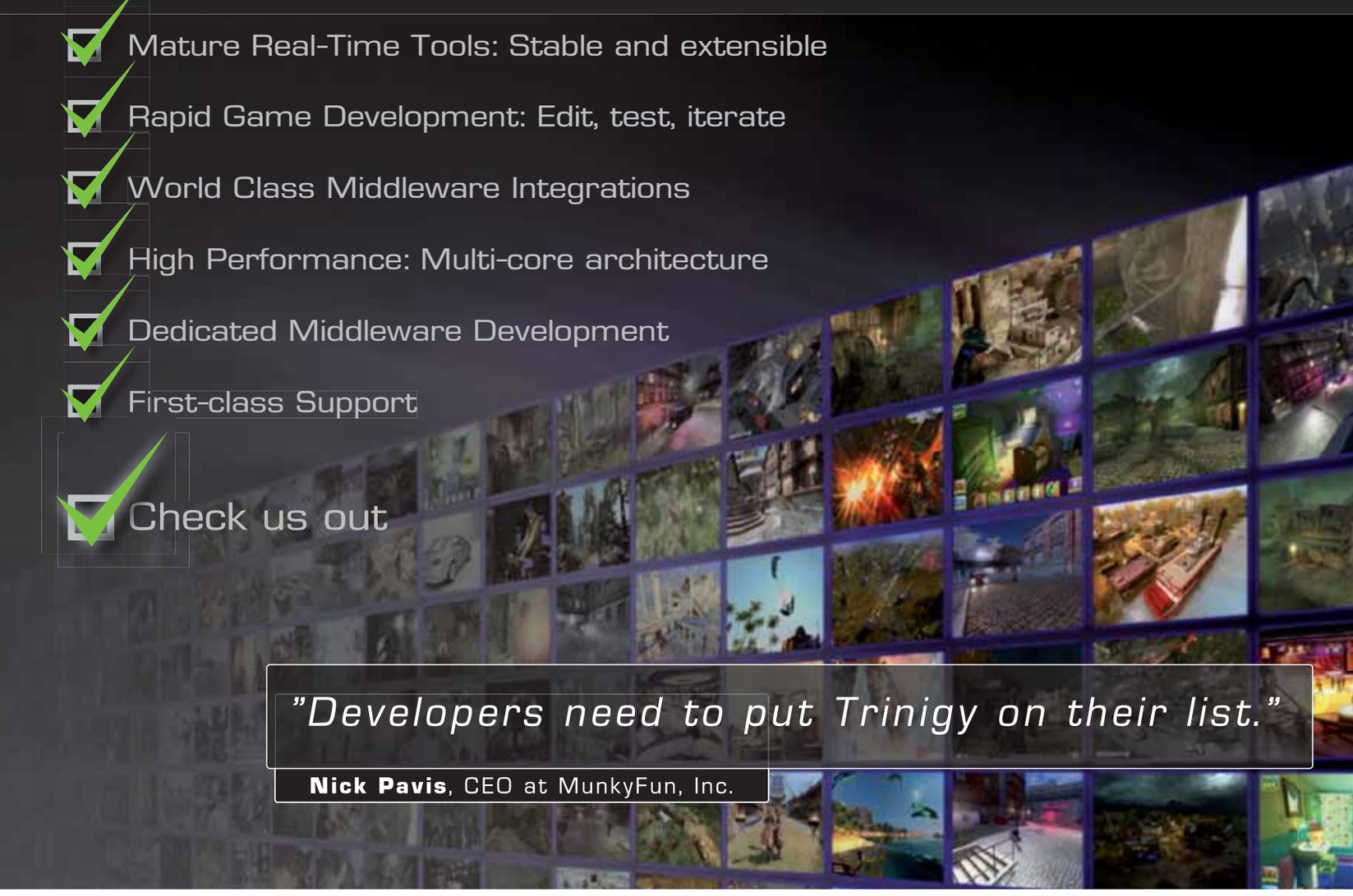

"Developers need to put Trinigy on their list."

Nick Pavis, CEO at MunkyFun, Inc.

Wii WiiWare PLAYSTATION 3 XBOX 360 XBOX LIVE arcade Games for Windows

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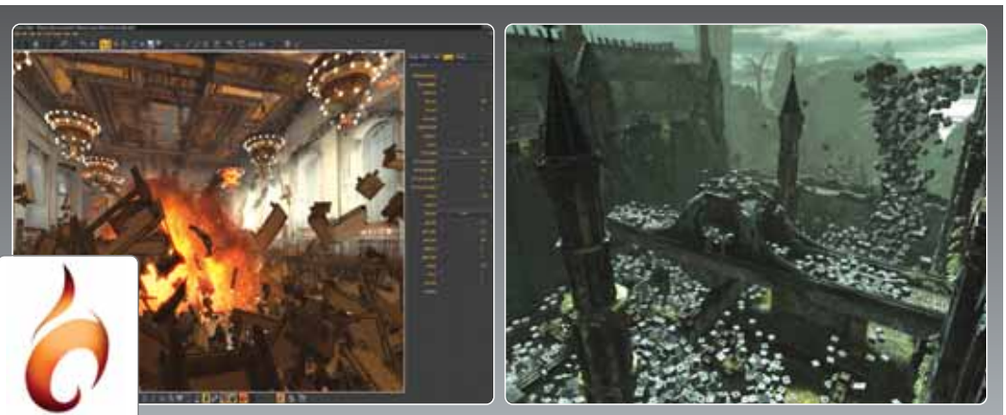
INFERNAL ENGINE

Developer: Terminal Reality
Platforms: Xbox 360, PS3, PC, Wii, PS2, PSP
Browser support: No
Cost: Available on request
Published titles: *Ghostbusters* (Terminal Reality), *Mushroom Men: Spore Wars* (Red Fly)
Titles in development: *The Strike and The Hunt* (Piranha Games), *Cook or be Cooked* (Red Fly), plus unannounced titles from Wideload and more
Middleware integrations: Scaleform GFx, FMOD, Wwise, Bink, Fonix, Quazal



Particular attention is placed on the engine's robust physics system, which allows scenes to be destroyed accurately with ease

If there was ever a good time for Terminal Reality to launch its own games engine, the run-up to the release of the hotly-anticipated *Ghostbusters* game would definitely be it.

Good-looking screenshots aside, the Infernal Engine is built from the developer's 15 year history in the industry, during which time it's shipped more than 30 titles. As such, much of the focus is on streamlining production. Take, for example, the integrated editor: not a major distinguishing feature on it's own, but it enables collaborative level design, farms out lightmapping and other intensive processes to servers, has an integrated performance monitoring and memory tracking system, and even optimises the packaging of game assets to minimise disk seeks on physical media (a whole separate middleware area in its own right).

The areas the engine touches are far wider than just productivity, though: it has its own physics system called VELOCITY that can simulate thousands of objects at once, as well as dynamic destruction and cloth simulation. The developer has also recently added the dynamic collision avoidance AI used in *Ghostbusters* to cope with massively dynamic environments, and is close to rolling out 'dramatic improvements' in its animation system.

Audio is also catered for, with a data-driven engine with support for streaming on all platforms, real-time remote connection to tweak sound cues during playback, integrated positioning, spatialisation and Doppler shift for 3D audio.

The engine's C++-like scripting language Dante offers all of the benefits of a compiled language – quick execution, small memory footprint – but, curiously, features immediate feedback of script changes without recompilation.

Given its wide platform support and future-proofed multi-threaded architecture, the Infernal Engine could easily be a big player in the market.

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GAMEBRYO LIGHTSPEED

Developer: Emergent Game Technologies
Platforms: Xbox 360, PS3, Wii, PC
Browser support: No
Cost: Available on request
Published titles: *Fallout 3* (Bethesda), *Civilization Revolution* (Firaxis), *Warhammer Online* (EA Mythic)
Titles in development: Unannounced titles from Square Enix, Disney, Tencent, Sidhe and Tose
Middleware integrations: Nvidia PhysX and APEX, Scaleform GFx, Wwise, Speedtree, Illuminate Labs, NaturalMotion, Lightsprint, Aristen, Umbra, xaitment, memoraze, Allegorithmic, RAD

Rapid prototyping is the name of Emergent's game – some of the teams on Emergent's GDC stand had built fully-playable, good-looking prototypes in just nine days. Beats a PowerPoint presentation, anyway

Although the new name might fool you into thinking it a new entry in Emergent's middleware line-up, the company is clear on one thing: Gamebryo Lightspeed is very much the future for the global firm.

Having succeeded on its previous aims – to bring enterprise-level engineering to game middleware and to simplify multi-core development with Floodgate – Emergent is now pushing firmly into designer territory. "It's the first offering from Emergent that is focused not only on engineers but also the needs of game designers," says CEO Geoffrey Selzer. "It's an all-in-one system that offers rapid prototyping, rapid iteration, and real-time, on-target updates."

As such, Lightspeed adds a data-driven framework to the existing Gamebryo tech base, enabling designers to iterate mechanics and ideas within hours rather than weeks. In fact, given that it features the entire Gamebryo feature set under the hood – the same feature set that's powered genre-diverse games as big as *Fallout 3* and *Warhammer Online* – it's being placed as a solution that not only gets you rapidly prototyping, but can then follow with the development cycle all the way up to mastering up.

The new toolset includes an Entity Modelling Tool to control the new entity and behaviour system; a brand-new World Builder that ties into the entity system; an Asset Controller that automatically monitors for changes in assets, hotloading them into the tools and onto target platforms in real-time without recompliation; and a script integration system that allows you to use the scripting language of your choice.

Add to that the work it is doing in supporting small start-up developers – the number of small studios it hosted on its GDC stand was impressive – and Emergent's market share is only set to grow.

CONTACT: 5016 N. Parkway Calabasas, Suite 210, Calabasas, CA 91302, United States **Tel:** (818) 222-5355 **E-mail:** info@emergent.net **Web:** www.emergent.net

CryENGINE 3

Developer: Crytek
Platforms: Xbox 360, PS3, PC, 'MMO and next-gen ready'
Browser support: No
Cost: Available on request
Published titles: *Crysis* (CryTek), *Crysis Warhead* (Crytek), *Aion* (NCsoft)
Titles in development: Not disclosed
Middleware integrations: Scaleform GFx, CRI, FMOD

Even if you're not looking to make a shooter set on a group of tropical islands, CryENGINE 3 is adaptable to almost any genre – including MMOs

Those expecting Crytek to mirror Epic in terms of version numbering might have been surprised to see CryENGINE hit version three so quickly, but maybe it's important to be on an even playing field with your punchiest competitor.

The main addition to v3 is the long sought after console support – the formerly PC-only engine is now fully supported on Xbox 360 and PS3, with the developer at pains to point out that it's worked the graphics, physics, AI, networking and sound subsystems to make them ready for the massively many-core architectures likely to find themselves in the next generation of consoles.

Of course, this is CryENGINE, so what you really care about is the visuals. Crytek has seen fit to add a huge number of high-end graphical features to the engine, including a real-time dynamic global illumination solution fully optimsed for current-generation machines. There's also a new real-time soft particle system, which can be affected by object collisions, forces such as wind and gravity, and lighting and shadows; volumetric light beams; screen-space ambient occlusion support, a unique deferred shading solution and a high-level platform-agnostic shader scripting technology.

The 'What You See is What You Play' Sandbox editor – which now deploys live to target consoles, giving instant feedback to scene changes – has also had its functionality bolstered, with a new automatic vegetation placement ruleset that'll plant your foliage based on slope, surface altitude and desired density. There's also dedicated road and river builders, a specialised vehicle editor, a facial animation tool, plus automatic navmesh generation unified for inside and outside spaces coupled with the engine's dynamic pathfinding system. And, as if that wasn't enough, there's a fully featured audio offering, AI and game scripting by Lua or the graphical Flow-Graph system, an integrated physics engine and a full suite of performance analysis tools.

CONTACT: Hanauer Landstr. 523, 60386 Frankfurt am Main, Germany **E-mail:** cryengine@crytek.de **Web:** www.crytek.com

BLITZTECH

Developer: Blitz Games Studios
Platforms: PS3, Xbox 360, Wii, PSP, PC
Browser support: No
Cost: Available on request
Published titles: *House of the Dead: Overkill* (Headstrong), *Power Up Forever* (Blitz Arcade), *Karaoke Revolution Presents American Idol Encore 2* (Blitz Games)
Titles in development: *Dead to Rights Retribution* (Volatile Games), *Invincible Tiger* (Blitz Arcade), many more TBA
Middleware integrations: FMOD, Kynapse, Bink

Ten years in the making, Blitz's remarkably fully-featured solution is already in use by a number of the company's external partners

Given the Oliver brothers' frequent comments about the horrors of middleware, it was quite a surprise to see Blitz move into the technology licensing arena. But all due credit to them – if you've got a platform- and genre-agnostic offering that's been fine-tuned over the past 10 years, why not let other people use it?

Although the internal uses of the tech are diverse – from the next-gen *Dead to Rights* to almost all of Blitz Arcade's digital-distribution titles – the company is keen to market BlitzTech to triple-A developers only. It's built for large-scale development, with in-built asset management that supports remote working and in-built version control.

The focus is therefore very much on tools and the asset pipeline to support big teams, with the editor allowing designers and artists to work on multiple SKUs – including technologically disparate ones – through one interface. The editor can also be deployed on the target console to give immediate feedback and allow users to move objects, change properties and update assets in real-time.

The engine is also certainly leading in graphical aspects too, as anyone who's seen the amazing-looking *Dead to Rights* in person will attest. One particular highlight is that it runs entirely on dynamic lights – there are no pre-baked lightmaps whatsoever – on both the Xbox 360 and PS3, which gives better lighting and immediate feedback for artists. Of course, if you do want to do any complicated offline baking, the engine's built-in distributed network processing system will help make it a much quicker process.

Finally, one of the real distinguishing features is BlitzTech's support for true stereoscopic 3D on current-generation consoles. Blitz is firm in its belief that 3D is the future, but is happily licensing out that technology now, including compatibility for the numerous standards that currently exist.

CONTACT: Regent Square House, The Parade, Leamington Spa, Warwickshire, CV32 4NL, UK **E-mail:** business@blitzgamesstudios.com **Web:** www.blitztech.com

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UNITY 3D

Developer: Unity Technologies
Platforms: PC, Mac, iPhone, Wii
Browser support: Yes
Cost: $199 (Indie), $1499 (Pro), $399+ (iPhone), $15,000 (WiiWare, per title), $30,000 (Wii, per title)
Published titles: *FusionFall* (Cartoon Network), *Zombieville USA* (mikamobile)
Titles in development: Secret MMO by Funcom, other unannounced products
Middleware integrations: PhysX, Mono, more to come

Unity's interface is a joy to use, and puts even triple-A focused tools to shame. Not bad for a new contender

We first covered Unity in these pages about a year ago, as it started to make more of an impact in the indie/low-end development market. For all its virtues, though, it was hampered by being Mac-only.

Unity 2.5, launched at GDC, finally brings the Unity toolset to Windows and all those developers unwilling to switch to Macs for the sake of a nice engine. The editor differs from many in being entirely visual-lead – assets can be imported into projects by a simple drag-and-drop (that actually opens the host application in the background to export with optimal settings) and scripts are linked visually.

The editor is also now completely scriptable, meaning that new workflows and interfaces can quickly be made up. Several members of the community have made new editors freely available, including a pathfinding module with automatic (and manual) nagivation mesh generation and behavioural tree editors.

The community is something that Unity Technologies considers a big selling point of the engine: the low entry point means that many hobbyist and indie developers are ardent supporters. As they rationalise it, when big triple-As like Funcom and EA embark on development, they've got a wide (and educated) support base and also a pool of ready-trained talent to recruit from. Parts of Cartoon Network's MMO *FusionFall* were developed by community members, for example.

It's also got arguably the best iPhone support, with the actual device acting as an input method to the editor to fine-tune accelerometer controls. According to the company, a new Unity-powered iPhone game is added to the App Store almost every day.

Other console support is currently limited to Wii, but support for Xbox 360 and PS3 is firmly within the company's roadmap, as are the MMO functionality updates spun out from the success of *FusionFall*.

CONTACT: Duevej 94 a, 2000 Frederiksberg, Denmark **E-mail:** info@unity3d.com **Web:** www.unity3d.com

BIGWORLD TECHNOLOGY SUITE

Developer: BigWorld
Platforms: PC, Xbox 360, PS3, iPhone, PSP, DS, mobile devices
Browser support: No
Cost: Available on request
Published titles: *Hokuto no Ken Online* (GungHo), *Tian Xia 2* (Netease)
Titles in development: Unannounced titles from Gazillion and 38 Studios
Middleware integrations: BitRaider, Exigent, FMOD, Gni, Hypernia, Scaleform UI, Speedtree, Vivox, Umbra Software

BigWorld is very popular in Asia, where it has powered a number of MMOs. Its first US customers should release products within the next year to two, apparently

BigWorld's Technology Suite has proved pretty popular in China and Japan – admittedly the main MMO market – but with version 2.0, out towards the later end of this year, the company is integrating a raft of features that could see it stake out a bigger claim in the face of rivals like HeroEngine and the Monumental Technology Suite.

Version 2.0 offers performance increases due to improved multi-threading support on the client side, various special and post-effects that enable a wide range of real-time filters to be applied to the graphics engine, including sophisticated motion blur, depth of field and colour correction and distortions. On the server side, the architecture has been rolled over onto 64-bit, enabling much greater memory addressability – and therefore larger, more complex worlds – and further revisions to server scalability, reliability and general performance.

In answer to numerous client requests, BigWorld has also implemented in-game browser support (including JavaScript and Flash) and instant messaging protocols (MSN, AIM, ICQ, GoogleTalk and Twitter via XMPP) to facilitate the next generation of 'always connected' social experience worlds, blurring the line between in-world experiences and exterior information services and content. The firm is also interested in applications on mobile devices, community management, and user generated content. Further enhancements to the client rendering engine – specifically lighting, shadows and physics extensions – are planned for next year.

The work BigWorld has also done supporting teams releasing games has also forced the company to work with other partners to fill in the gaps, meaning that established relationships are available for billing and community management.

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UNREAL ENGINE 3

Developer: Epic
Platforms: PC, Mac, Xbox 360, PS3
Browser support: No
Cost: Available on request
Published titles: *Mass Effect* (Bioware), *The Last Remnant* (Square Enix), *Lost Odyssey* (Mistwalker), *The Wheelman* (Midway)
Titles in development: *Alpha Protocol* (Obsidian), *DC Universe Online* (SOE), *Alien Breed* (Team 17)
Middleware integrations: Fonix, SpeedTree, GameSpy, Scaleform GFx, PhysX, Illuminate Labs, Umbra, morpheme, nFringe, HumanIK, Kynapse, Bink, ProFX, AI.implant, Quazal, DigiMask, GameLink, Wwise, Enlighten

New features in the latest version of Unreal Engine 3 include a content browser and level heat maps for metric analysis

To be honest, Epic's monster behemoth doesn't really need any introduction at all. Now almost an industry standard in its third incarnation, Unreal Engine 3's domination of the full-engine middleware sector is hard to argue against.

Still, the main criticism levelled against it – usually by its competitors, we should say – is that the engine is geared towards first- (or third-) person shooters. Nevertheless, customers have managed to extend and rip apart the engine to power everything from Japanese-style RPGs to open-world action-racing games like *The Wheelman*.

One of the emerging usage groups is for MMO development. In order to give the engine a better standing against dedicated MMO solutions like HeroEngine and BigWorld, and emerging threats like CryENGINE, Epic has tasked its China office with the development of Atlas, its persistent world server technology and MMO creation and management toolset.

Another new feature is Unreal Lightmass, a new global illumination solver that can produce lightmaps with smooth bounced lighting without the need to use any third-party technology. Generation of the lightmaps can also be farmed out by the new Swarm distributed processing solution to use idle CPUs locally and across networks.

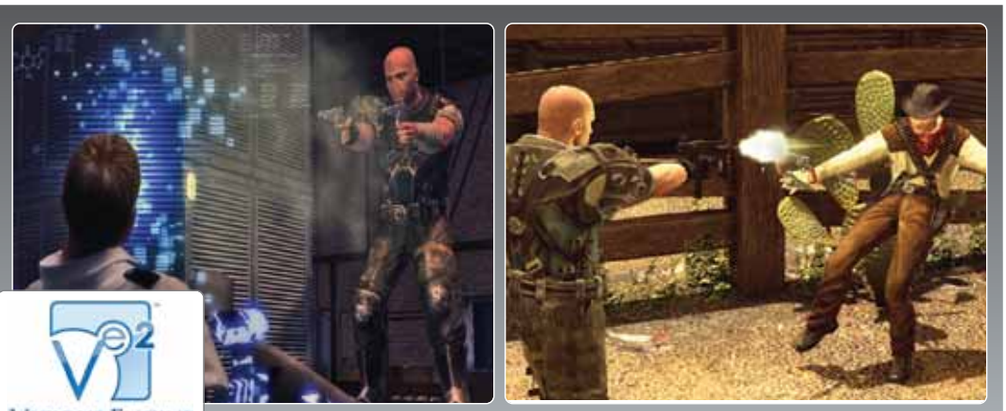
The new Unreal Master Control Program is a new service-orientated architecture based on the *Gears of War 2* persistent stat tracking system. It allows developers to track online populations and even domain-specific data mining such as level-based heat maps to quickly identify chokepoints and problem areas in multiplayer maps.

Finally, Epic has enhanced asset management by introducing the new Content Browser, which allows users to tag assets and then find them easily with search filters, allowing users to locate, preview and manage assets regardless of whether they're loaded or not.

CONTACT: 620 Crossroads Blvd, Cary, NC 27518, United States **E-mail:** licensing@epicgames.com **Web:** www.epicgames.com

VICIOUS ENGINE 2

Developer: Vicious Cycle Software
Platforms: PC, Xbox 360, PS3 (VE2); PSP, PS2, Wii (VE)
Browser support: No
Cost: Available on request
Published titles: *Eat Lead: The Return of Matt Hazard* (Vicious Cycle), *Dead Head Fred* (Vicious Cycle), Hilton serious game (Virtual Heroes)
Titles in development: Unannounced



Vicious Cycle's Ve2 takes the company's philosophies to the 'current-gen' arena, as shown here in the internal title Eat Lead: The Return of Matt Hazard. But is it too late?

Ambitious independent developer turned engine provider Vicious Cycle is more than aware that it can't compete with Epic in the super high-end AAA stakes. The niche it's looking to fill are the smaller developers who have to move quick in order to survive; not those that can take three years on a project.

Version one of the Vicious Engine – which is geared to lower-end platforms such as the PSP, PS2 and Wii – is still available, but what the company is really crowing about is the new version, Ve2, launched at GDC 2009. Teased for a number of years, the engine takes the Vicious Engine's philosophy – of enabling teams to rapidly prototype and shorten the development process – and brings it kicking and screaming into the PS3 and Xbox 360 territory.

The engine provides a fully-rounded toolset, including navmesh-based pathfinding, an easy editor for creating re-usable hierarchical state machines, and contextual point-and-click scripting for those who don't want to get their hands dirty with code.

Also, according to the developer, the engine will convert your game to PlayStation 3, Xbox 360 and PC 'simultaneously at the push of a button', which is quite the claim. It's also got an in-built asset manager with a version control system to make sure that all assets are checked out when working on them and to ensure that assets remain frozen as milestones approach.

Ve2 also features a robust physics system that includes ragdolls, inverse kinematics, surface friction, hinge constraints and object buoyancy. A new lighting system also means that placement, colour and intensity of lights can be quickly prototyped in the editor without the need to bake lightmaps, but ambient occlusion maps can still be baked to improve real-time performance.

CONTACT: 3005 Carrington Mill Blvd, Suite 500, Morrisville, NC 27560, United States **Phone:** 919-370-3000 **E-mail:** info@viciouscycleinc.com **Web:** www.viciousengine.com

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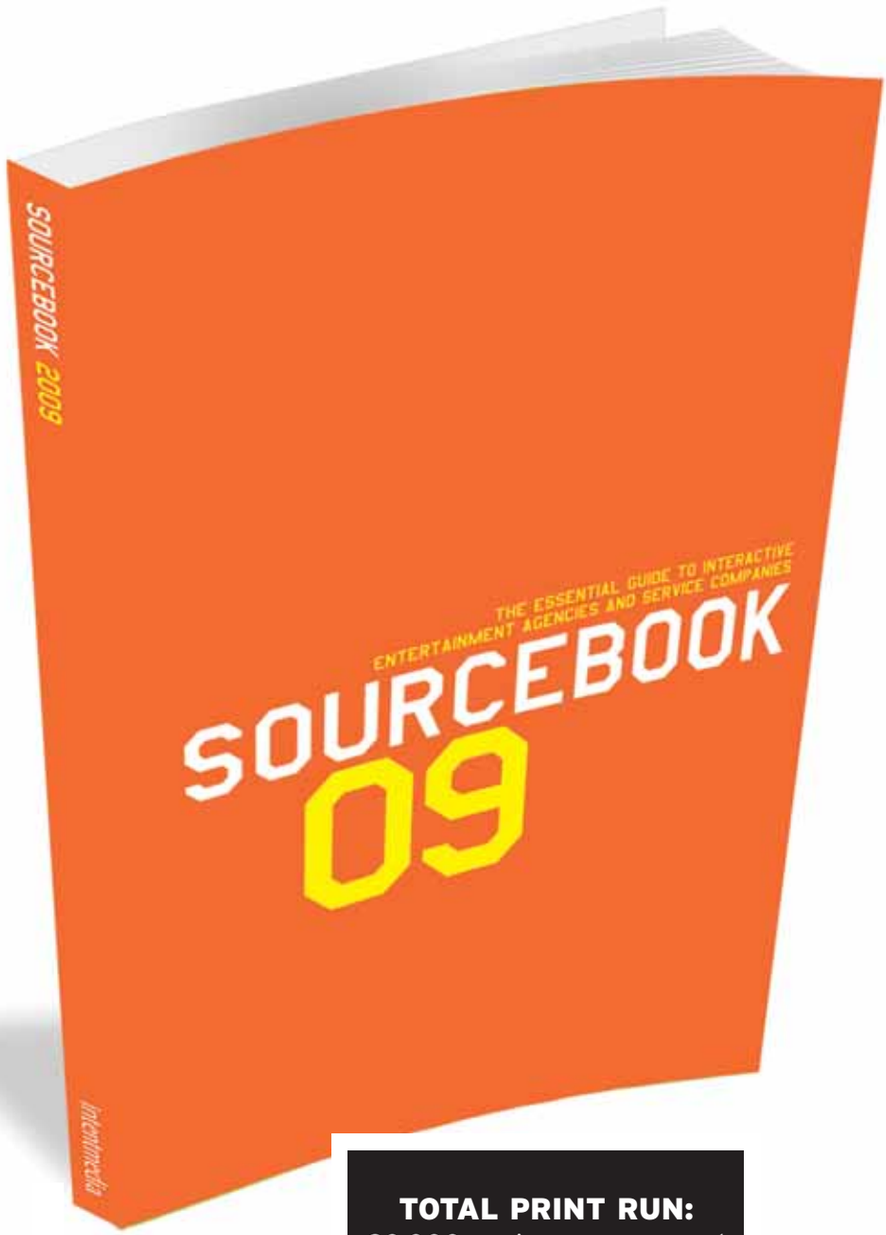

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KEYRELEASE

PhyreEngine

Who'd have thought that Sony would include a fully-featured, free engine in its SDK? **Ed Fear** sat down with the the SCEE R&D team to find out more…

PRODUCT: PhyreEngine
COMPANY: SCEE R&D
PRICE: Free
CONTACT: See DevNet for download

Left: *Flower* is one of PhyreEngine's success stories

Right: The new foliage technology on display

One of the hot topics at the beginning of this console cycle was the thorny issue of the PS3's architecture. Developers across the globe moaned that its heterogenerous processing model was a bit of a bastard, especially compared with the Xbox 360.

Sony, in its defence, was quick to react: making the newly-purchased SN Systems' profiling tools part of the SDK and dropping costs to help developers out. But, in actual fact, plans had already been put in place quite a while before then.

R&DIFFERENCE

Back when the PS3 was in its earliest of days, Sony looked to bolster its global research and development teams, previously largely focused in Japan. Staff at SCEE's R&D facility looked at what they could add to the SDK to help developers, and they started a high-level, cross-platform graphics engine, then called PSSG.

"The naming meant that developers had no idea what it was about," says Paul Holman, SCEE's VP of research and development. "You can see that we're a technology team, not a marketing team. It was completely lost in the SDK."

Until last year, that is. Feedback told the team that what they really wanted was a broader, more comprehensive engine. Hence, PhyreEngine was born – a cross-platform, completely open, totally free high-level game engine.

One of the things that differentiates PhyreEngine is that not only is it open source, but the licensing terms are probably the most flexible around, explains Holman: "Because we're giving away the source code, people can do whatever they like with it – in fact, the license agreement specifically says that developers can rip parts out, use it, port it, and they don't even have to credit us. It's very open."

So open, in fact, that aside from the PC and PS3 support that comes as part of the engine, the group has no qualms with people porting it to other platforms. "If we make something that's very focused on our platform, we won't get many people using it," says Jason Doig, SCEE's manager of R&D. "The broad profile of our developers is that they're doing cross-platform work, and they're not going to adopt technology that's not flexible.

"Certainly, PhyreEngine is focused on PS3, and there is some functionality in there that will only work on it. There are other bits that will work on other platforms, but you might not get the performance you would on the PS3. We're exploiting the SPUs in the way that they should be used, so we're bound to get that slight disparity in performance."

UNDERWIRE SUPPORT

One thing that Doig is keen to point out is that, just because they've provided the full source code to the engine, doesn't mean that they're washing their hands of it.

"It's there to give people confidence. We spend at least half of our time giving direct support to developers, and that ranges from answering questions to helping people fix things, optimising things – every game has different requirements, so it's impossible for us to be optimal for every case."

Similarly, because the code is shared, some teams have even contributed back to the engine. "It's quite common, really," says principal engineer Richard Forster. "Given that they've got the source, they can just give us a patch and then we'll drop that in for the next release. Quite a lot of teams are willing to keep this feedback going because they know it'll help future releases."

Of course, by giving it away, with no need to sign any agreement or even credit the group, there are games out there using the engine that they don't know about. "They'd gone through the whole development process and got the game out there, and they'd not had to ask us a single question," explains Doig. "If they don't have an issue with it, we don't find out."

That probably makes the team's internal estimate of number of customers – they say they're currently supporting 'between 20 and 30 developers across all three territories' – likely a gentle underestimation. But having powered games by Codemasters, Doublesix, FluffyLogic, thatgamecompany and Sidhe, it's pretty clear that the team has made the difference to developers that it was looking to.

VERSION THERAPY

By the time this issue reaches your hands, version 2.5 of PhyreEngine will most likely have made it out of the final stages of testing. The team shows us what's coming up in version 2.6: a new post-processing system for effects, more optimisations, and the 'release' version of its impressive foliage system.

Following on from the team's work on terrains in earlier versions, the foliage system allows artists to freely build trees in the modelling software of their choice, the constituent parts of which can then be tagged in a special program (to delimit the trunk, branches and leaves). The system will then dynamically LOD the trees, taking them from the full model to clumped leaves, and then eventually to billboard clouds.

SCEE tries to release new four new versions of PhyreEngine a year, on a roughly three-month basis. Ask them what's beyond 2.6, however, and they're a little bit more vague.

"We're hopefully looking to make a bigger jump in numbering next time, so we're taking a step back and thinking about what we could do," says Doig. "We had this graphics focus, but what people want is something more encompassing; they expect more functionality. So we're looking at how to adopt other bits of tech that'll make us more complete as a game engine."

HEARD ABOUT

50 Cent: Blood on the Sand

John Broomhall talks to sound director Rob Bridgett on Swordfish's curious collaboration…

DEVELOPER/PUBLISHER: Swordfish/THQ
PLATFORMS: PS3 and 360

THE AUDIO TEAM:

SWORDFISH STUDIOS
Sound director – Rob Bridgett
Audio lead – Mark Willott
Senior audio coder – Justin Caldicott
Audio coder – Andrew Green
VIVENDI LA
Voice director – Eric Weiss
Music licensing and supervision – Steve Goldman
Recording engineer – Mike Patterson
RADICAL ENTERTAINMENT
Post-production sound design – Cory Hawthorne
Music & dialogue mastering and editing – Lin Gardiner

Sound director Rob Bridgett sums up can sum up the artistic direction for *50 Cent: Blood on the Sand* pretty succinctly: "A hip-hop music video on PCP."

The player takes the role of 50 Cent, shooting anything that moves, whilst tracking down a diamond-encrusted skull received in payment on completion of a world tour – sadly, subsequently stolen during an ambush. Of course.

"Curtis Jackson himself wanted something different – no New York ghettos, but something more like an adventure comic book, so preposterous it belongs in one of his music videos," says the game's sound director Rob Bridgett.

"It's a frankly insane romp through an unbelievable story giving us plenty of latitude for craziness. In the opening moments of gameplay you run through bombed out buildings with enemies bursting from doors; an entire street is ripped up from a mortar attack as you stand in it and everything's on fire. The scale of the destruction is mad, but the real OTT factor comes from the fact this is 50 Cent… in a warzone.

"The game never takes itself too seriously – there's a lot of humour in the story and the tongue-in-cheek scenario. We even employ a taunt button feature so you can hear 50 Cent scream something obscene at any point. Taunts are upgradable by unlocking new taunt packs and can be worked into combos, so if you hit the taunt button when killing you score a multiplier. As well as being gratifying and hilarious, taunts also feed into the gameplay mechanics and reinforce the overall direction."

With sound design for vehicles, helicopters and tanks needing to be amped-up to a 'Hollywood on steroids' perspective, there were significant demands on the mixing technology in order to provide the correct audio focus. "If you're running and finding cover without shooting, music is pushed to the foreground," Bridgett explains.

"When you start shooting or being shot at, we very subtly push forward the sound effects by reducing the music level. For more tightly choreographed close-in interactive one-on-one combat moments, we really put the music upfront to create larger-than-life drama.

"All our mixing is dynamic, occurring at run-time based entirely on the events that are triggered in the game. One unique feature in *50 Cent* is the 'low health' sound, which has a dedicated mixer snapshot with most sound effects turned down slightly, low pass filtered, and with a little down-pitching of the ambience. As the player's health gets lower, we gradually blend towards the low health snapshot, rather than just switch – it's a much more non-linear approach."

> ***"The game never takes itself too seriously – there's a lot of humour in the story."***

Having experienced the ravages of audio crunch, Bridgett is now careful to promote an intelligent post-production model.

"We carried out one week of sound effects replacement in the mix studio at Radical – playing through the game, reviewing the audio and substituting any sounds that could be improved whilst maintaining the exact same memory footprint," he says.

"We then spent a week mixing the game – getting the overall volume in line with an acceptable level at reference listening 79dB – the recommended level for home entertainment media – plus matching and testing against relevant competitors' games. Then it was a case of tuning our various mixer snapshots. Some are generic and populate the entire game, like dialogue ducking, and some are specific to unique events and/or missions, making it important to play through the entire title to find all these moments and ensure they worked as planned."

The post production model Bridgett has adopted in recent years relies on good communication for its success, involving himself from day one on the project to liase with project managers and producers.

"Everyone agrees that audio is always last and can be a last-minute scramble, so it's at this point that I roll out my 'sound alpha' and 'sound beta' dates, which are essentially three week extensions for the audio team to do its final quality control and polishing work. The sound alpha date allows us to get all the content in and still react to eleventh-hour level design-driven changes, whilst the sound beta dates allow us to carry out our week of sound replacement and fortnight of dedicated, no-distraction mixing in a calibrated environment.

"This doesn't mean we don't hit production alpha or beta – we make sure we have the relevant content in to achieve both goals – we just know that we'll work beyond these dates. Making it official is sensible for everyone. Throughout the project I over-communicate all this to project management and the team. I've found this model to be successful in improving quality, and greatly reducing the stress of finishing a game."

Swordfish's Rob Bridgett

John Broomhall is an independent audio director, consultant and content provider
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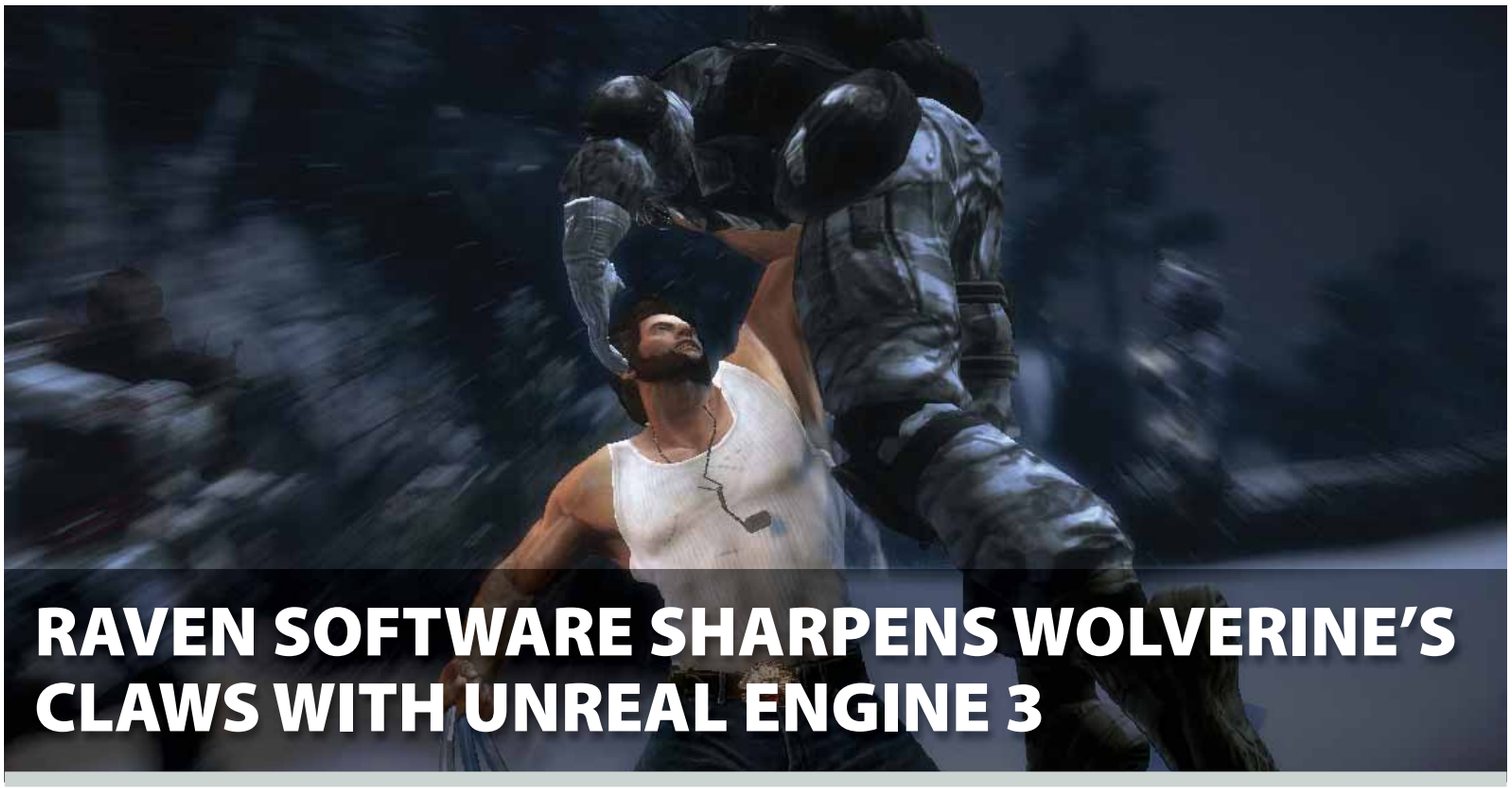

RAVEN SOFTWARE SHARPENS WOLVERINE'S CLAWS WITH UNREAL ENGINE 3

Activision's Raven Software recently shipped *X-Men Origins: Wolverine* for PC, Xbox 360 and PlayStation 3 in tandem with the 20th Century Fox film starring Hugh Jackman. It's the first Unreal Engine 3-powered game from the studio, although *Singularity* is coming out, also from Activision, later this year.

"We had struggled to make *Marvel Ultimate Alliance* next-gen, and then we saw *Singularity* and we were like, 'Holy crap, that's the type of tech we want to use,'" says Dan Vondrak, project lead on *X-Men Origins: Wolverine* at Raven Software.

The new game puts players in control of one of Marvel's most popular characters, Wolverine, and offers an array of abilities and attacks ripped straight from the comics.

Vondrak said that during production, UE3 allowed the artists to jump ahead of the rest of the team. They were able to create huge jungles with sun rays coming through, leaves floating on the wind, and water puddles.

"Working with Unreal allowed us to add depth to the game. That's why we were able to create a Wolverine model with three layers of regeneration. We have the skeleton; the muscle and skin; plus the clothing on top of that. That's all made possible using Unreal's materials and shaders. It's really powerful when we coupled it with our smart tech guys who put everything together to make it work."

Vondrak said the designers utilised Unreal Matinee to create the bigger moments from the game, some of which were original and others were expanded from the movie.

Matinee allowed the team to create action sequences featuring moving trucks and flying helicopters. While the final animations were done by animators, Unreal aided them in getting everything just right – like Wolverine's perfect landing atop a whirring helicopter in mid-air.

"The Kismet tech is really powerful," added Vondrak. "When you look at what Epic has been able to do with this technology with the *Gears of War* games and then look at *Wolverine*, you can see the type of meaty combat that translates across genres.

"Kismet allowed us to throw all of these huge sequences into our game, which gives players a very cinematic experience. All of these set pieces – like when Wolverine is in the air skydiving from helicopter to helicopter – were created by our designers using Kismet."

One example of Matinee, Kismet and AI all working in tandem can be seen in the epic battle between Wolverine and the 100-foot-tall Sentinel robot.

Players will pit the tiny, but powerful, Wolverine against this monster in a three-pronged battle that starts on the ground and then takes to the air.

Vondrak said that all of the sequences, including what would have been cut scenes, were made playable thanks to Unreal.

"Unreal Engine 3 was just fantastic to work with," said Doug Smith, senior technical artist on Wolverine at Raven. "One of the challenges with Wolverine is that we wanted to make a game that's true to Wolverine without spending a ton of time building up our tech. The Unreal Engine was a great stepping stone to make that happen quickly," Smith remarked.

"It was a great way to actually give something to artists and designers that was mature and fully flushed out. We knew we could make a good-looking game if we worked it right, and I loved working with Unreal."

Thanks to Raven Software for speaking with freelance reporter John Gaudiosi for this story, which will be posted in full at www.unrealtechnology.com

Raven's X-Men Origins: Wolverine

UPCOMING EPIC ATTENDED EVENTS:

GameHorizon Conference
Newcastle, England
June 23-24, 2009

Develop Conference
Brighton, England
July 14-16, 2009

SIGGRAPH
New Orleans, LA
August 4-6, 2009

Please email: mrein@epicgames.com for appointments.

To discuss anything raised in this column or general licensing opportunities for Epic Games' *Unreal* engine, contact: **mrein@epicgames.com**

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Canadian-born **Mark Rein** is vice president and co-founder of Epic Games based in Cary, North Carolina. Epic's Unreal Engine 3 won Game Developer's Best Engine Front Line Award for three consecutive years, and it was inducted into the Hall of Fame this year. Epic's internally developed titles include the Gears of War and Unreal Tournament series

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develop evolve

EVOLVE is a new one-day event which will open the Develop Conference on Tuesday 14 July, and a new track within the conference on Wednesday 15 July.

EVOLVE will focus on how to develop games for new platforms including mobile, iPhone and XBLA, new technologies and new markets like social and casual gaming. It will help game developers tackle the issues arising from emerging platforms and digital marketplaces, connected gaming, user-generated content and cross-over between games and Internet services.

Who's Speaking?

KEYNOTE

Resetting the Game.
David Perry, Creative Director of Acclaim Games

KEYNOTE

The Long Tail and Games: How Digital Distribution Changes Everything. Maybe.
David Edery, Independent Consultant

KEYNOTE

Moving Games to a New Beat: The Development of Nokia's Dance Fabulous.
Mark Ollila, Director of Technology & Strategy and Head, Nokia

Sessions include:

- **Infectious: How Viral Games Capture an Audience of Millions**
  Jeff Coghlan, Matmi
- **A Game is a Game is a Game**
  Dave Thomas, Denki
- **Whose quiz is it, anyway?: Bringing user-generated content to the Buzz! franchise**
  Dan Croucher and Caspar Field, Relentless Software
- **Panel: Is Digital Distribution Truly the Saviour of the PC Game?**
  Dorian Bloch, Chart Track/GfK
- **User Generated Content – the Legal Consequences**
  Tahir Basheer, Sheridans
- **Case Study: A Browser-Based MMORG on Every Desktop**
  Jim McNiven, Kerb
- **Browser Based Games The Past, the Present, the Future**
  Gustaf Stechmann and Jonathan Lindsay, Splitscreen Studios
- **Panel: Opportunities and Hurdles for Mobile Gaming**
  Chair: Tim Green, Mobile Entertainment
  Mark Fletcher, Nokia
- **The European Free to Play Market**
  Thomas Bidaux, ICO Partners
- **Practical Applications of Online Convergence**
  Paul Croft, Mediatonic

Other companies speaking at the Develop Conference include:

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PEOPLE:
Lightning Fish catches three new staff
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TOOLS:
Digital Molecular Matter added to Vision Engine
p60

SERVICES:
Badolatomusic scores big for Wheelman
p62

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Studio News

This month: Lightning Fish, Rare and nDreams

Banbury-based independent developer **Lightning Fish Games** has bolstered its headcount with three new recruits as it gears up for the release of its debut product.

First up is Laurence Alexander (*pictured left*) who joins the company as a designer. Previously of Frontier Developments and Traveller's Tales, he'll be working on the design of *NewU: Fitness First Personal Trainer*.

Next up is Alan Kemp (*pictured centre*), former chief technology officer at Stainless Games, who joins Lightning Fish as a senior programmer.

The final recruit is Ben Adams, former assistant producer on *Buzz* at Relentless Software. Ben will be overseeing production, localisation and QA for *NewU*.

"We see Alan as key in our expansion plans. He is a valuable addition to the team with his considerable experience on Xbox 360 and PS3 on titles such as *Magic the Gathering, Red Baron Arcade, Asteroids, Battlezone, Warlords* and *Tempest*," said Simon Prytherch, CEO of Lightning Fish.

"Meanwhile, Ben's experience on a family-oriented game such as *Buzz* will be invaluable for our games."

www.lightningfishgames.com

Rare has appointed Shintaro Kanaoya into a newly-created role as head of business strategy and development.

Kanaoya, who was most recently senior manager of MMOs and free-to-play at EA, will be responsible for 'driving Rare's franchise planning' and 'maximising the potential of Rare's IP'.

Kanaoya started in the industry as a journalist on *The Games Machine* and *Sega Pro*, before joining Bullfrog as a designer. He has also worked as a producer at EA Square Japan and on the *Harry Potter* franchise at EA UK.

www.rareware.com

nDreams continues its expansion drive with four new members of staff.

Mike Souto joins as senior producer from Eidos, having spent over ten years in the industry working on titles such as *TimeSplitters 2*, *Who Wants to be a Millionaire?* and the *Commandos* series. Andy Gibson joins as Lead Artist having worked at Gusto, Core and Revolution on projects such as *Tomb Raider*, *A Bugs Life* and *In Cold Blood*.

Peter Nicholson joins as an artist, having previously worked at Lionhead and EA. Finally, Babu Madhikarmi joins as a programmer having worked at Sprite Interactive and Glu Mobile on over 15 games.

"We're delighted to welcome on board four talented new team members," said Patrick O'Luanaigh, nDreams CEO. "Between them, they have almost 40 years experience in the games industry and demonstrate just how far nDreams has come."

www.ndreams.co.uk

Blitz Games Studios 01926 880000 www.BlitzGames.com

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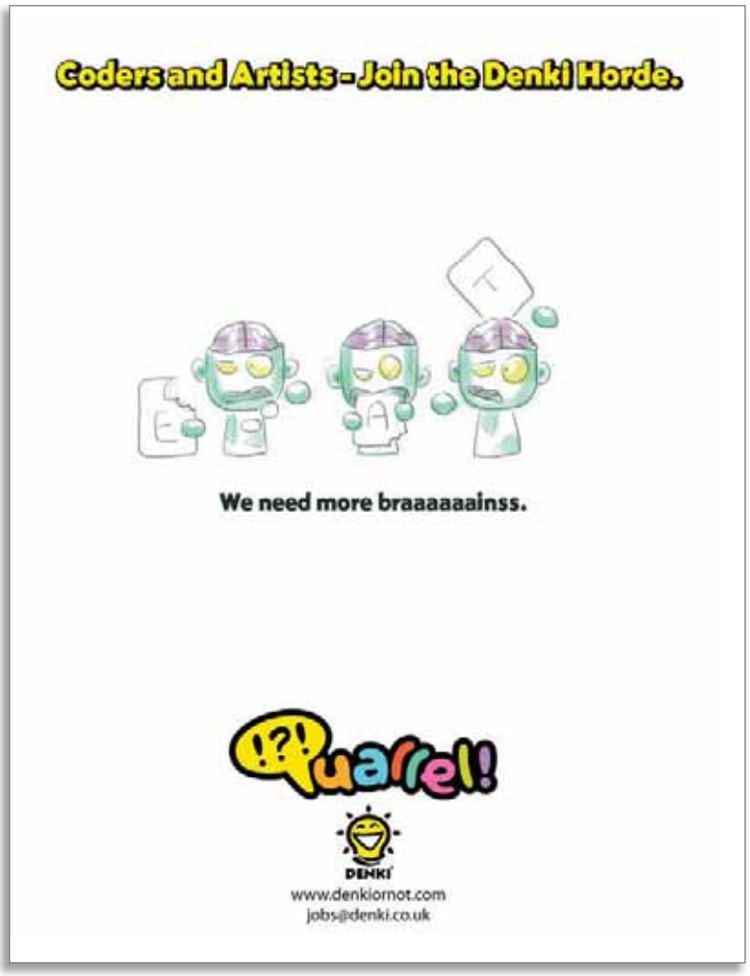

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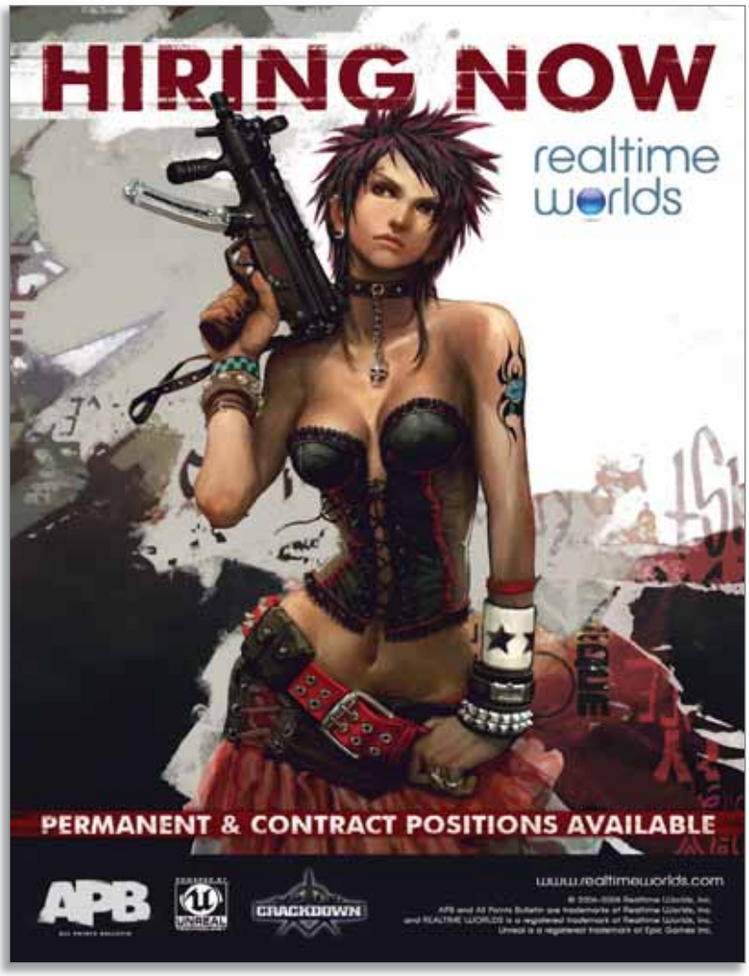

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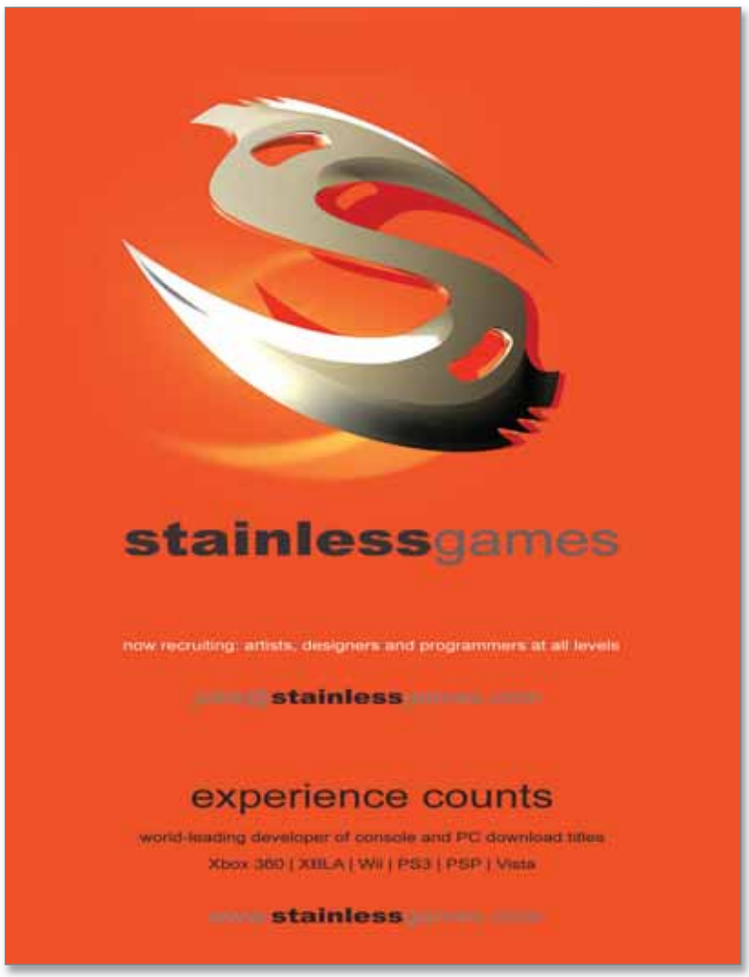
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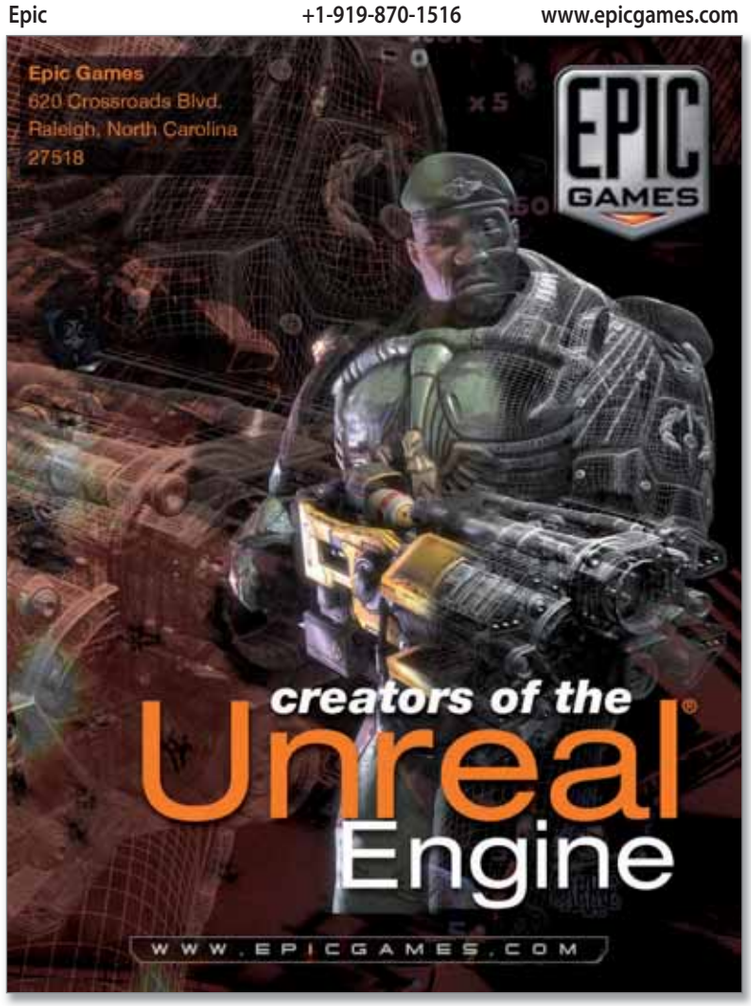

Tools News

Digital Molecular Matter integrated into Vision Engine

Trinigy is bolstering its own Vision Engine by adding Pixelux's Digital Molecular Matter (DMM) – the same physics technology found in LucasArts' 2008 release *Star Wars: The Force Unleashed*.

Developed by Pixelux, DMM simulates the physics of objects in relation to their material properties, as well as governing the deformation and breaking points of those materials. The tech's most famous appearance so far was in the LucasArts game, where it was touted as a key feature.

Trinigy's Vision Engine SDK will now include a DMM plug-in where users can manage deformable and breakable materials.

Dag Frommhold, managing partner at Trinigy, said that DMM is an "amazing piece of technology," adding that Trinigy and Pixelux are working on multiple projects together.

Raphaël Arrigoni, cirector EMEA at Pixelux, returned the compliment by stating that "Vision Engine's real-time editing capabilities and extensibility are perfectly suited for empowering developers to drive next generation physics development."

www.trinigy.net

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Tool Spotlight

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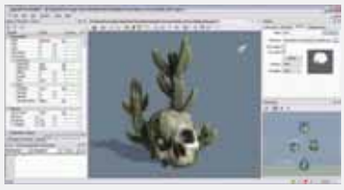

Area of expertise: Vegetation

Having managed to grow a new niche in the games middleware market with SpeedTree, you might think that it'd be tempting for IDV to rest on its laurels. Not so – the latest version, debuted at GDC this March, is a complete re-engineering of the foliage tech.

The new SpeedTree Modeler gives a far higher degree of control to artists when building trees, including the ability to set force parameters to guide branch shape and grow models around rocks and other imported models.

Meanwhile, the engine can now be integrated to various degrees – either a full integration into your game engine, a partial integration, or just simple export of models to geometry data. The tech now contains physics data to interact with your engine's physics system, and has built-in support for Nvidia's PhysX APEX Vegetation Model.

Similarly upgraded is SpeedTree's level of detail system, which now manages to aggressively simplify geometry while still eliminating any pop-in during transitions.

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Services News

Badolatomusic provides score for Wheelman

Brothers Jorge and Guillermo Badolato – known as Badolatomusic – have provided the majority of the music to Midway Newcastle and Tigon Studio's blockbuster *Wheelman*.

The pair created half of the multi-layered interactive in-game soundtrack and scored most of the title's cutscenes, as well as creating music for promotional trailers.

The brothers describe the game's soundtrack as 'a high-energy and frenetic action score' featuring a mixture of powerful orchestral textures, techno-electronica, percussion, Spanish flamenco and live electronic guitars.

"Working with Badolatomusic was a complete joy," said Craig Beattie, audio director of *Wheelman*.

"They delivered 50 per cent of the in-game musical scores for Wheelman and most of the cutscene music. Their music fitted perfectly with the tense missions and atmosphere of the game. When things got tight and changes to cutscenes where needed they re-scored the music to fit, and they delivered time and time again without one complaint."

Jorge and Guillermo added: "It's been a honour for us to work with Midway on this title, there has been an excellent understanding with Craig Beattie right from the start."

www.badolatomusic.com

Imagination Studios breathes new life into Alan Wake

New signs of life from the *Alan Wake* project have emerged with developer Remedy announcing its partnership with motion-capture group Imagination Studios.

Uppsala, Sweden-based Imagination Studios – formerly known as Northern Light Studios – will supply the Finnish developer with motion-capture and animations to assist in the game's elongated production. The firm has previously worked together with EA DICE, Starbreeze, IO Interactive, and others.

Lasse Seppänen, executive producer at Remedy Entertainment said: "It is with great pleasure that we can recommend Imagination Studios. Remedy has been extremely pleased with their co-operation and devotion in bringing the characters of *Alan Wake* to life. Aside from this, the team at Imagination Studios have been a real pleasure to work with, flexible and dedicated to solving problems."

www.imagination studios.com

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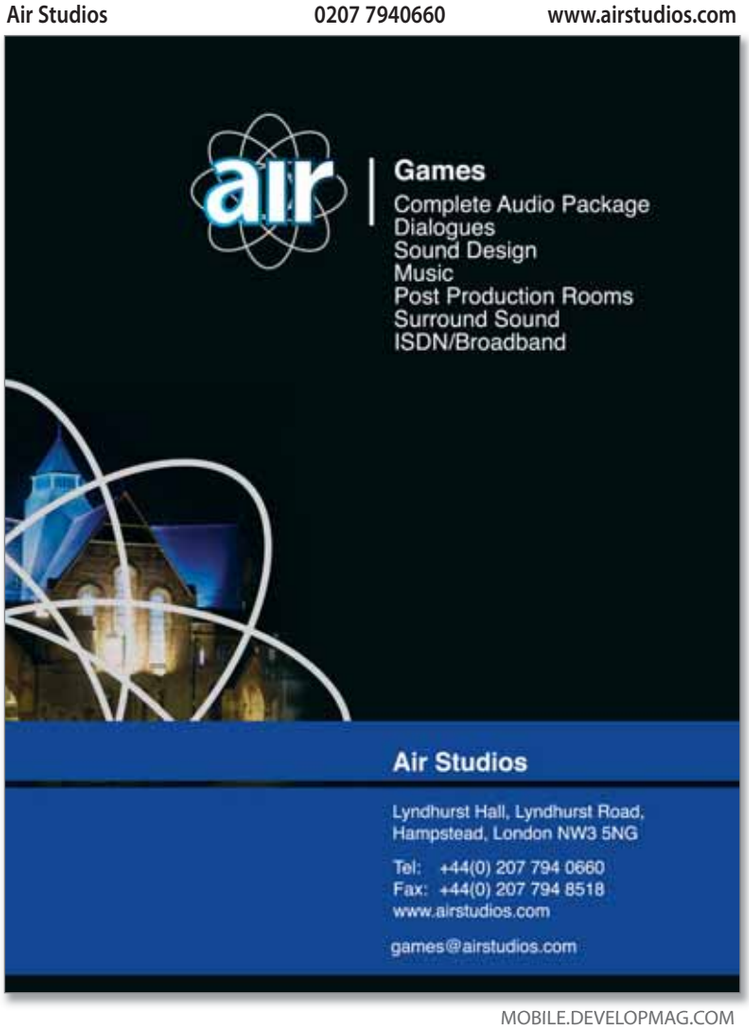

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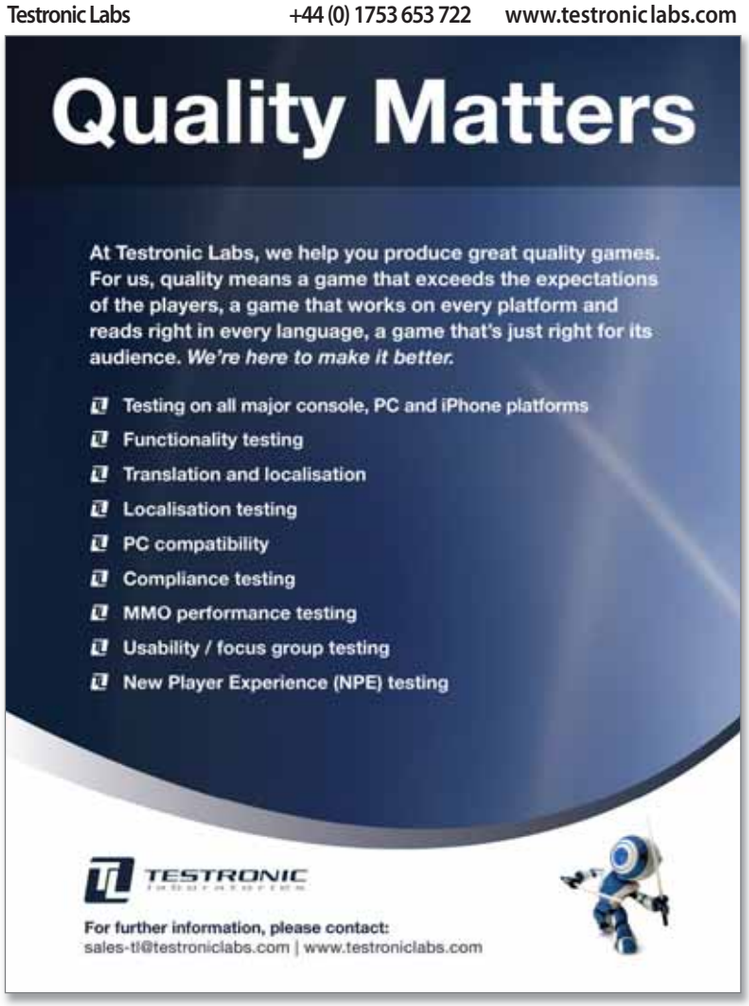
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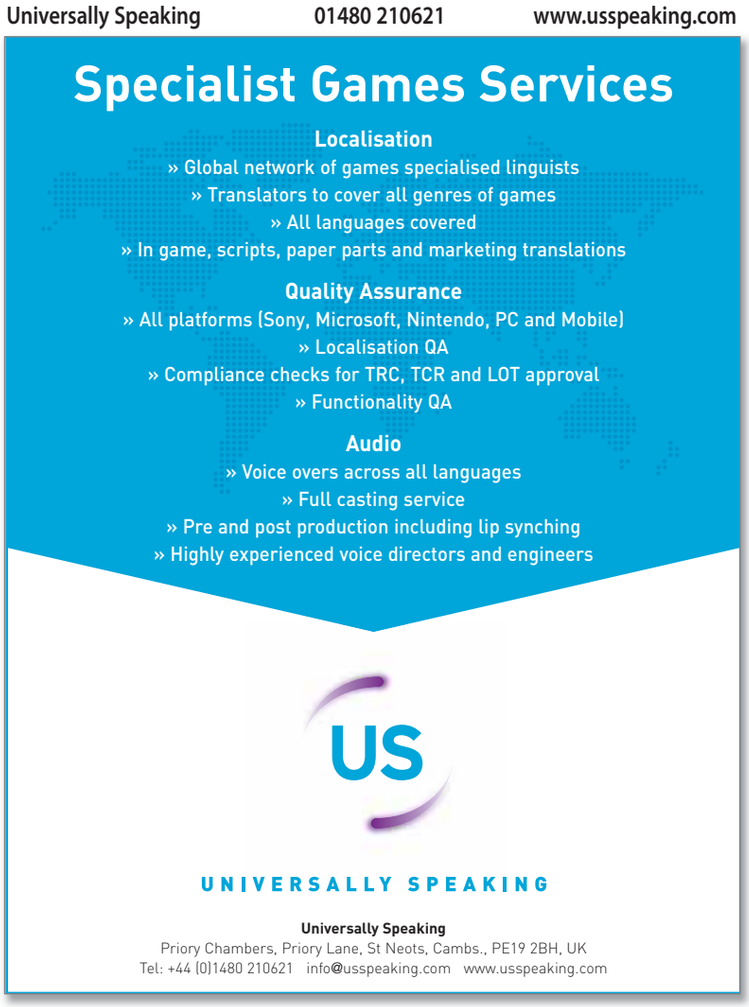
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TRAINING NEWS

New game education summit for Pittsburgh

Industry executives will merge with academia during the upcoming Game Education Summit (GES) in June, organiser Game Path has announced.

GES will take place from June 16-17 at Carnegie Mellon University in Pittsburgh, Pennsylvania. Game Path says the event is the only one of its kind, and is positioned to allow industry executives and course lecturers to consult on how to best educate the next generation of game designers.

Seven areas of discussion are offered, featuring sessions on areas such as narrative writing, development tools for traditional games, 'serious' applications of gameplay, as well as the International Game Developer's Association's recommended curriculum.

"Across the country, universities are investing heavily to build curriculum to teach the game designers of tomorrow," said GES director Mark Chuberka.

"But game instruction is still a relatively new field. This conference brings instructors together with industry professionals to talk about what skills students need and to hear the top instructors discuss teaching methods and cutting edge theory."

www.gameeducationsummit.com

Tiga to partner in Train2Game UK distance-learning coruses

Tiga is set to become the awarding and examination body for Train2Game's distance-learning courses.

The two current Train2Game courses – covering the areas of programming and game design – are intended to provide necessary training for those who want to enter the games industry specifically if they have no related university qualifications.

Tiga will now contribute to the development of the courses, while some of the body's members have the opportunity to give guest lectures to students. Tiga will be giving input on a range of examination content, and will also award a Tiga-accredited diploma to those individuals who successfully pass the exams.

"The T2G courses are designed by the industry for the industry and are relevant to current industry needs," said Tiga CEO Richard Wilson. "Individuals who take the qualifications and pass the exams should be fit to work in a developers' studio."

The courses are open to all, and allow students to study in their own time from home. A third T2G course, covering the field of art design, will arrive by March 2010.

www.train2game.com

Tiga warns Government against university cuts

In other Tiga news, the organisation has warned the government against slashing funding for higher education

In a letter from John Denham, Secretary of State for Innovation, Universities and Skills, establishments of further education have been informed that they may have to prepare to make spending reductions of £300 million next year.

"The UK video games industry needs well educated and qualified people in order to compete effectively," said Tiga CEO Richard Wilson. "Universities supply an important part of the industry's workforce. Many developers recruit graduates in disciplines including mathematics, computer science and video games. On average, 60 per cent of game developers' staff are qualified to degree level or the vocational equivalent; in some studios over 80 per cent are qualified to this level."

www.tiga.org

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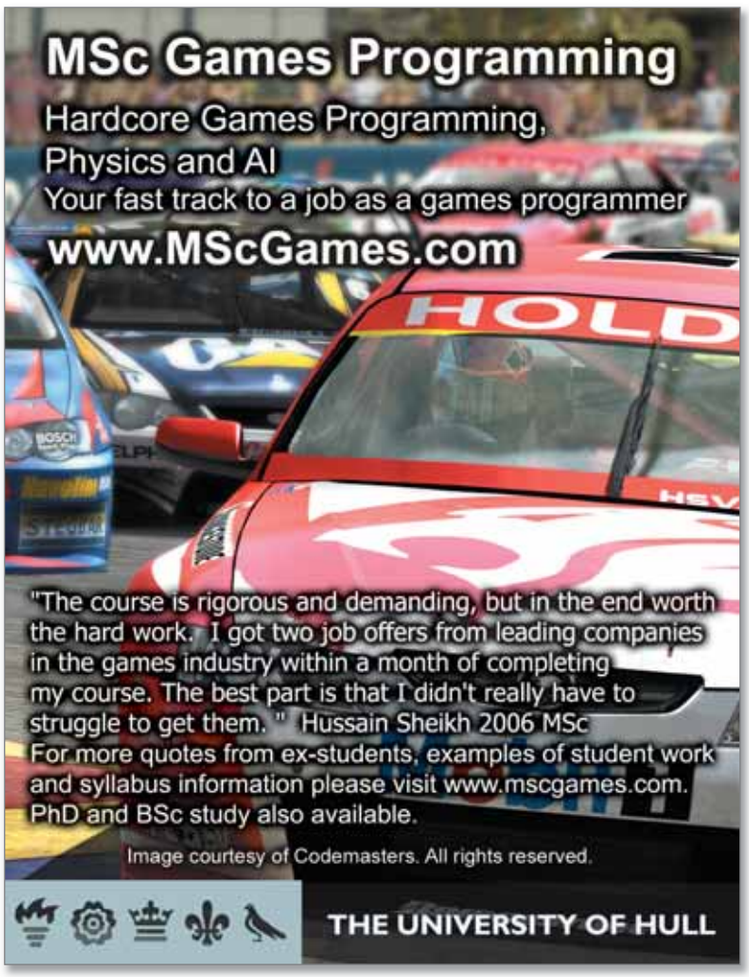
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For more quotes from ex-students, examples of student work and syllabus information please visit www.mscgames.com.
PhD and BSc study also available.
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MY FAVOURITE GAME

Notable developers tell us which game warmed their heart, caught their eye, and ate up their free time…

I LOVE… **SUPER MARIO 64**

by Mario Aguera,

Producer, *Thief 4*, Eidos Montreal

"My favourite game of all time has to be *Super Mario 64*. It broke the mould in regards to freedom and how you could explore a world. It was masterfully designed and, importantly, it was pure fun.

What's terrible is that, though I love playing games, because it's my job I end up dissecting and analysing them. With *Super Mario 64*, it was just pure enjoyment. I wasn't analysing anything, I just completely accepted it.

It was a tall order to take the previous *Super Mario 64* games and move that into the third dimension; this team had succeeded that wonderfully. It had brilliant, simplistic puzzle designs, a great camera system, and a beautiful, inoffensive world, which you could have so much fun exploring and experimenting with.

It is a master class in game design."

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Event: Develop Conference
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Develop Awards round-up
Event: Edinburgh Interactive Festival, GDC Europe
Regional Focus: Scotland
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The Future of Game Audio
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